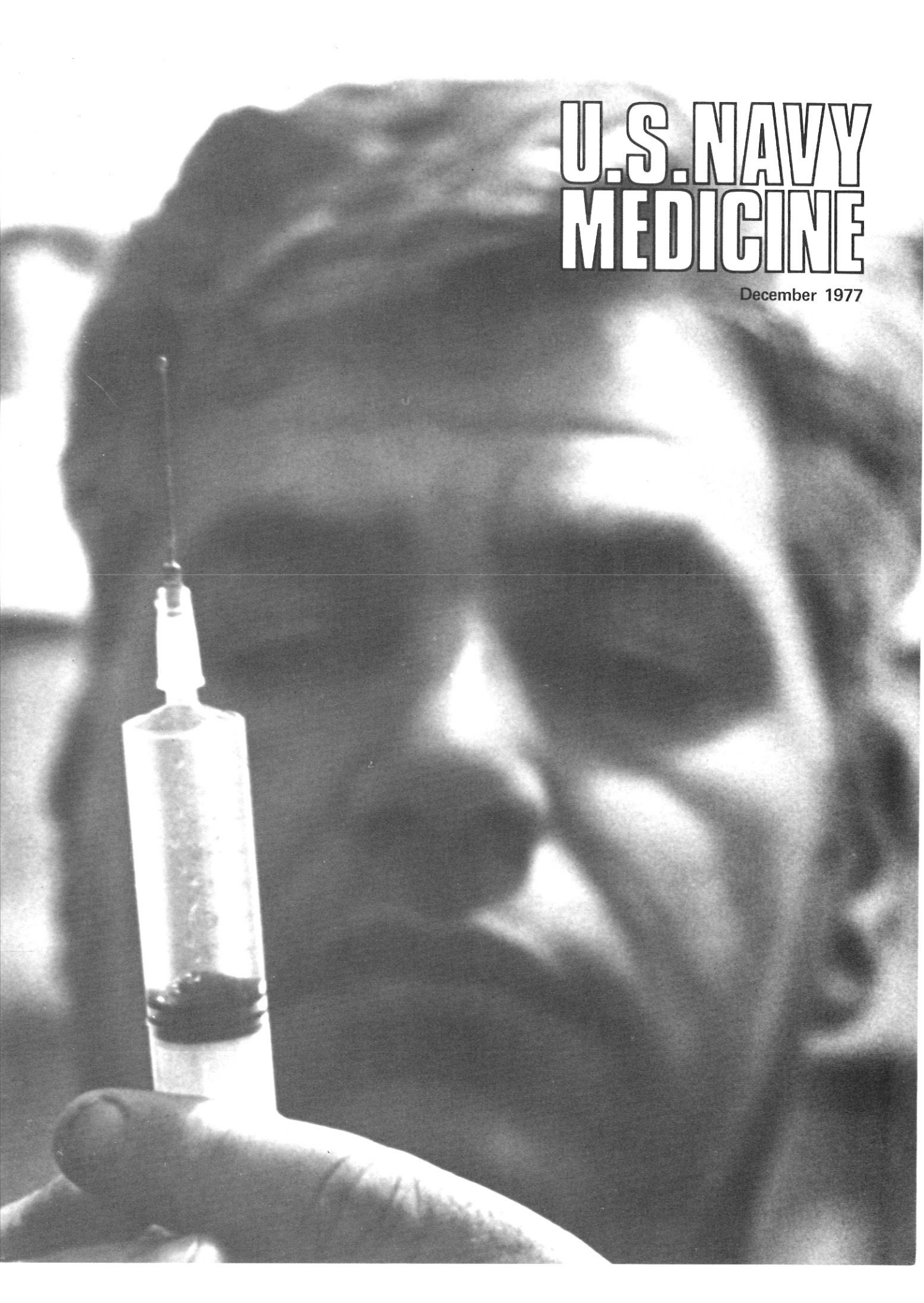


U.S. NAVY MEDICINE

December 1977



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COVER: Getting ready to lend his support to the National Immunization Initiative is HM1 Stanley R. Warnock. To learn what's new in the Medical Department's immunization program, see page 2.

From the Surgeon General

Reflections at Year's End

YEAR'S END and the holiday season traditionally mean a pause for review and reflection. Looking back on our progress during 1977, I would sum up the year as "eventful"—but that doesn't begin to tell the story. The year's work was demanding, frustrating, occasionally disappointing, more often fruitful and rewarding, and all in all a test of our mettle.

Coloring all our work was the physician shortage. For years, Medical Department leaders have predicted that, with the end of the draft and in the absence of any planned program to improve the attractiveness of military medicine, there would be an inevitable decline in the number of Medical Corps officers. This year, almost overnight, the nation took notice.

The flash point was NRMCO Oakland where last spring an anesthesiology resident charged publicly that the medical facility was undermanned and poorly equipped, and that patient care was compromised as a result. Before we could complete our own investigation of these charges, the story had been picked up by local television stations and newspapers. Gradually interest spread to network news programs, the wire services, and the nation's leading medical newspapers and magazines. The situation ultimately drew the attention of the Chief of Naval Operations, the Secretary of the Navy, and Members of Congress.

Both the investigation I ordered in June and a later Naval Inspector General inquiry into conditions at NRMCO Oakland revealed that while there were shortages of equipment and personnel, overall health care

provided at the facility had not been adversely affected. Certain deficiencies in management were reported, but action to correct these problems was under way even before they drew such extreme public interest. Specifically, the damaging charge that patients had died as a result of staff and equipment shortages was proven in all instances to be false. After reviewing the IG report, Chief of Naval Operations ADM James L. Holloway said, "While the team made a number of substantive recommendations aimed at improving patient care at Oak Knoll, it is important to recognize that the team found that the overall level of patient care there is high."

Secretary of the Navy W. Graham Clayton, Jr., voiced all our convictions when he said, "We intend to make certain that Department of the Navy personnel and their dependents—in the Bay area and throughout the world—continue to receive the best possible medical care."

An immediate sign that policymakers outside the Medical Department have begun to take seriously the problems of Navy medicine is the call for two major studies aimed at improving medical care for Navy and Marine Corps personnel and their dependents. At the direction of ADM Holloway, my staff and I, together with the Chief of Naval Personnel, have begun an intensive review of medical personnel distribution, and will study the adequacy of manpower in Navy medical facilities worldwide. Our goal is to ensure the very best use of our limited medical personnel.

In addition, by early summer we had already contacted a civilian con-


sulting firm to make plans to study the organization and management of the Bureau of Medicine and Surgery. Through this study, which is now under way, we hope to identify opportunities to strengthen our health care delivery system.

I welcome this interest in our work, because in it I see the promise of our recovery. More than our problems are on display: we have also been able to use these opportunities to remind the public—and our policymakers as well—of the important role Navy medicine plays in this nation's defense, and of our absolute need for support. We have been able to reaffirm our belief that Navy medicine is **good** medicine.

Again and again, the investigators and reporters looking into the Oakland story have told me of their admiration for the dedicated personnel they found at that facility. I know this kind of dedication can be found at **all** our facilities.

I am aware, and am pleased that now many more people are aware, of the compassionate care you offer your patients, and of the patriotism that attracts you to the often difficult life of Navy medicine. I appreciate your fine efforts and am proud to serve with you on this outstanding health care team.

May this holiday season bring you much joy, and may you and your families prosper in the new year.


W.P. ARENTZEN
Vice Admiral, Medical Corps
United States Navy

Department Rounds

Preventive Medicine

BUMED Backs Immunization Initiative

Ninety percent of American children under the age of 14 fully immunized by October 1979: that's the goal of the National Immunization Initiative called for last April by President Carter.

The Navy would like to do even better.

"The most preventable diseases in the world today are those for which immunizations are available," says CAPT Dennis F. Hoeffler (MC), director of the Bureau of Medicine and Surgery's Occupational and Preventive Medicine Division.

"About 75% to 80% of our military dependent children are properly immunized," Dr. Hoeffler reports. "That's better than the national average—which is about 60%. But this still implies a significant problem: some 25% of our children are not adequately immunized and are unnecessarily susceptible to preventable disease."

Growing menace. Contrary to what many people believe, safety against the preventable diseases of childhood cannot be taken for granted. Polio cases are reported each year; and measles, rubella, and mumps strike annually, in all types of communities, in all parts of the country. Several hundred children suffer from diphtheria and tetanus, and nearly 1,000 from pertussis each year. With these diseases may come death or serious disability.

Experts fear that under present conditions, widespread epidemics of "childhood diseases" could strike once again.

What are these present conditions that make preventable diseases a continuing problem and an even more serious threat? Figures from the Center for Disease Control



Children should be immunized early to help control disease

of the Department of Health, Education, and Welfare tell the story. In 1963, some 84% of the nation's children between one and four years of age were vaccinated against polio. Ten years later, only 60% of the children in that age group were vaccinated. Also in 1973, only 61% of these young children were vaccinated against measles, 56% against rubella, and only 35% against mumps. The best news was that 73% had received the combined vaccinations for diphtheria, tetanus and pertussis—but even this level was down from 79% two years earlier.

The result: preventable diseases are a continuing, growing menace.

Outbreaks. For the Navy and the Marine Corps, the drop in children's immunization levels means grown-up problems.

"We are getting major outbreaks of rubella in some of our training centers," Dr. Hoeffler reports, "and we think we are also seeing an increased incidence of measles. The susceptible groups are adolescents and young adults who either were not immunized as children or were inadequately immunized."

Dr. Hoeffler believes the solution is simple: more children must be vaccinated.

"We don't recommend wholesale immunization of young adults except in outbreaks," he explains. "But we want to take care of the disease reservoir in infants and children up to the age of 14. If we can control disease in these children, we can avoid outbreaks among our young adult military men and women."

Some steps have already been

made in that direction. Across the nation in 1974 and 1975, small but significant increases were seen in vaccination statistics. The percentage of young children vaccinated against polio rose from 60% in 1973 to 63% in 1974 and to 65% in 1975. Other diseases follow a similar pattern: in 1975 some 75% of the nation's young children had received vaccinations, 66% were vaccinated against measles, 62% against rubella, and 44% against mumps.

Two new directives demonstrate Navy support of President Carter's immunization alert. SECNAV Notice 6230 of 16 Sept 1977 calls for all Navy and Marine Corps activities to participate in the National Immunization Initiative by disseminating information and cooperating with local immunization campaigns.

Even earlier, on 18 July 1977, BUMED Instruction 6230.12B was released updating policy for administering live measles virus vaccine to dependent children.

AAP recommendations. Medical Department personnel involved in the National Immunization Initiative may wish to consider the following recommendations of the American Academy of Pediatrics:

- All U.S. children should receive recommended vaccines against all preventable infectious diseases.
- An immunization program should encourage administration of vaccines *as part of a preventive health care program that is continuous and comprehensive.*
- Any immunization program should be part of a continuing physician-patient relationship, or should be the introductory link to such a relationship.
- Sustained multimedia promotional campaigns should be designed to educate medical professionals and the public to expect and demand routine immunizations for children.
- An efficient system of recording immunizations should be instituted.

"Navy physicians must make sure their patients are protected," says Dr. Hoeffler, "even if that means a check of all charts. Hos-

pitals and clinics must set up systems to ensure that the immunization records of all new patients are reviewed on their first visit."

"Medical Department members should work through their local schools to make sure the immunization initiative reaches all our dependent beneficiaries ages 5 to 14.



Youngster receives measles inoculation during outbreak in Hawaii

They also should work with the local PTA and school board to help raise the immunization levels of other young children in the community."

Cholera boosters. Although Navy support of the National Immunization Initiative is directed toward protecting dependent children, the Navy has not slackened its efforts to assure proper immunizations for active duty military members. In June, a complete revision of BUMED Instruction 6230.1H was issued, updating immunization requirements and procedures.

The major change in this triservice regulation involves cholera vaccine. Once required every six months for military personnel outside the U.S., cholera booster shots are now given Navy and Marine Corps members only when they will be living in a country with a cholera outbreak (as determined by the

World Health Organization), or if the boosters are required by the host country. Navy members continue to receive the basic series of cholera shots if they are stationed outside the continental U.S. or preparing to depart for an overseas duty assignment.

"Nobody really knows just how good active-duty members and their families are about keeping immunizations up to date," says LCDR Michael Quinlan (MC), head of the BUMED Epidemiology Section, "but we think there's plenty of room for improvement."

"The major problem is with people going overseas or reporting to fleet units without their vaccinations," he explains. "Then they have to get the shots on the spot. It's an extra expense to the local command and an inconvenience to all concerned. And sometimes when the individual must be vaccinated by a local physician before being allowed into a foreign country, we can't even be sure that the best vaccines are used."

"All in all," says Dr. Quinlan, "it's easiest, safest, and best for everyone if people will get the immunizations they need here at home before they head overseas."

Another common problem is the sailor who starts a series of vaccinations and then is transferred before he can complete it.

"It's up to the Medical Department representative aboard ship to know the immune status of the people under his care," Dr. Quinlan points out. "When a man comes aboard, the hospital corpsman must check on the status of his shots. The sailor is supposed to have had his inoculations, but sometimes he doesn't. The Medical Department representative can't let up on this kind of medical surveillance."

Inadequacies. Navy Surgeon General VADM Willard P. Arentzen (MC) discussed immunizations in a letter to medical facility commanding officers last February.

"It was presumed that the Navy and Marine Corps, with their enlightened populations, plentiful and

effective immunizing agents, and free medical care, would have a better overall immune status than that seen in the civilian community," the Surgeon General wrote.

"Formal and informal inspections of our records, however, have revealed that active-duty personnel are more poorly immunized against preventable diseases than had been previously suspected."

Immunization inadequacies were most common among Medical Department members themselves, the Surgeon General pointed out.

VADM Arentzen identified several problems involved in disease control in the military environment:

1) Inadequate record-keeping practices, a problem he proposed solving by "systematic audit of patient records and resolution of observed discrepancies."

2) Careless attitudes among patients, requiring local health education programs and strong Medical Department leadership to overcome.

3) Special health risks to military men and women as a result of their military duty or overseas assignments.

"Typhoid, poliomyelitis, diphtheria, and the like, while unusual in the U.S., are not rare overseas," VADM Arentzen said. "And although it is too soon to predict whether smallpox has been eradicated, its eradication does not eliminate its potential use as a bacteriological warfare weapon."

Rubella study. To provide greater protection, a BUMED-sponsored study is under way to determine the costs and benefits of routinely immunizing all recruits against rubella. Such immunization could be expected to reduce the number of recruits hospitalized for rubella—1,200 last year—but there are other considerations.

"At least 85% of our recruits already have a natural immunity to rubella," LCDR Quinlan points out.

"If we give rubella vaccine to female recruits we would first have to do a serologic test to see if they have natural immunity, and then do

a pregnancy test. Any female given the vaccine would have to be advised not to become pregnant for three months, since it is still considered a potential teratogenic agent."

Newest in the rash of immunization regulations is BUMED Notice 6230 of 4 October 1977, which provides current information on influenza disease, vaccine composition, and influenza immunization requirements for the 1977-78 epidemiologic year.

While nothing as dramatic as last year's nationwide swine flu immunization effort is expected this season, influenza remains a serious worldwide medical problem and its control is a continuing Medical Department responsibility. Because of its high attack, rapid spread, and the possibility of serious complications, influenza can gravely compromise the operational readiness of U.S. military forces.

Influenza vaccinations are required for all alert forces, and will

be offered other military personnel and dependents who volunteer for the immunization. Dependent children below age 18 may receive split virus vaccine only on a physician's recommendation.

Nonactive-duty recipients must be advised of the benefits and risks of influenza immunization, and their informed consent must be obtained before the vaccine is administered. This consent form is to be retained in the patient's health care record.

"The Navy Medical Department [possesses] the required assets to develop exemplary immunization programs for all its beneficiaries," VADM Arentzen wrote in his letter. "Sufficient leadership is also available to assure that these programs are adequately administered."

"The time has come to correct the existing discrepancies, beginning with ourselves and our Medical Department colleagues, and extending the effort to include our patients whom we serve."

Personnel

PASS: Prescription for Personnel Problems

LTJG Martha R. Bills, USN
ENS Hugh C. Sullivan, MSC, USN

An innovative system which will help relieve medical facilities of administrative and personnel record-keeping is being tested in the Washington, D.C., area.

The new Pay and Personnel Administrative Support System—called PASS—will provide Navy members with one-stop personnel and disbursing service. Routine procedures such as check-in and check-out, and changes in dependency status will be greatly simplified under the PASS concept. Greater accuracy in personnel and pay records is also expected as the

new centralized and automated system goes into effect.

PASS will be introduced in two phases, both of which should be completed by 1981. Phase 1 calls for the consolidation and co-location of personnel and pay functions. In addition to the existing office in Washington, a pilot PASS office has been established in Norfolk, and an office will open in San Diego in February.

A single personnel support activity will be established by the major claimant in a geographic area: for example, the Norfolk PSA will belong to the Commander-in-Chief,

Atlantic Fleet. The area PSA will be responsible for consolidated pay and personnel functions, and will be supported by personnel support detachments, similar to the existing pay network, in subordinate command locations.

In Phase 2, an improved data reporting system will be fully automated to link PASS offices with the Bureau of Naval Personnel and the Navy Finance Center through remote computer terminals. This support will enable the PASS system to improve management of military pay accounts by upgrading the timeliness and accuracy of source data for such programs as MAPMIS (Manpower and Personnel Management Information System) and JUMPS (Joint Uniform Military Pay System).

Eventually PASS may support local commands through automation of such data as watch-quarter-station bills, muster lists, medical manpower analysis reports, and medical specialty recall bills.

Consolidation. PASS was developed to meet several pressing needs. Currently, the Navy personnel, pay and financial management system are hampered by inaccurate and tardy reports from the field. Specific problems with the present system include:

- Cumbersome and complex reports required for pay and personnel transactions.
- Too many errors on optical character recognition report forms.
- Marginal service in some Navy personnel offices because of lack of experienced personnel.
- Exceptionally high training costs.

In early 1976, the Assistant Secretary of the Navy for Financial Management proposed a feasibility study on consolidation of pay and personnel functions. The study concluded that many transactions were being handled by both personnelmen and disbursing clerks. To reduce errors, eliminate duplicated work, and improve communication between the two functions, it was suggested that pay and personnel offices should be placed in the same

location. Norfolk, San Diego, and Washington were chosen for pilot consolidation efforts, because each area would present unique problems while drawing on a large base of Navy personnel.

The PASS system is expected to be extremely cost effective. Field office consolidation will provide sufficient savings to cover staffing requirements for personnel support centers and other field requirements. Long-term savings produced

Operational Medicine

Hit the Nets

Scrambling down a cargo net, clambering on and off helicopters, stumbling across a field in the dead of night searching for "casualties"—is this any way to practice medicine?

It is at the Field Medical Service School in Camp Lejeune, N.C., where Navy surgical teams 11 and 12 from Naval Regional Medical Center Philadelphia recently completed three days of field training, preparing themselves to meet operational medicine requirements in support of fleet units.

Operational medicine is a primary focus of today's Medical Department, with renewed emphasis placed on the overall Navy mission of keeping "as many men at as many guns as many days as possible."

But for the 32 members of the surgical teams the real trick was keeping as many men on as many cargo nets as many minutes as possible. Practice on dry nets prepares team members for disembarking from amphibious ships on wet cargo nets should the team go to sea with an amphibious task force. If not the most glamorous, the nets were perhaps the most challenging part of the training.

The training program, oriented toward field medical support of the Fleet Marine Force, included instruction in the structure of FMF

by the consolidation are expected to cover all costs, including development and implementation of automated data processing.

For Medical Department activities already hard hit by diminishing resources, PASS should be just what the doctor ordered. With more accurate pay records and better personnel services, everyone benefits—the Navy, the medical community, and most important, the patient.



Practicing on dry cargo nets
"The most challenging part of training"

medical support organization, medical aspects of amphibious operations, mass casualty handling, casualty evacuation and hospitalization, and medical supply. The surgical teams also participated in a helicopter evacuation exercise and practiced firing hand weapons.

Practical application of classroom instruction came during an overnight field exercise in which team members cared for "casualties" in a simulated battlefield environment.

There are 20 Navy surgical teams located at various naval regional medical centers throughout the world. Each team is required to be "well-oriented, trained as a team and completely familiar with their equipment and supplies." By training at the Field Medical Service School, the surgical teams will be ready when needed.

—Story contributed by CAPT E.T. Steward (MSC).

Special Report

The Surgeon General's 9th Annual Specialties Advisory Conference and Committees' Meeting

This conference was held 12-15 Sept 1977 in Arlington, Va. The following report of this annual session represents an edited (sometimes paraphrased or abbreviated) version of the remarks and presentations of specified individuals. Their comments do not necessarily reflect official views of the Navy Department or the naval service at large.

The proceedings of the first plenary session were published in the November 1977 issue of U.S. Navy Medicine. The following report covers the second and final plenary session of SAC IX.

SECOND PLENARY SESSION
15 September 1977

What We Need to Do

RADM J. William Cox, MC, USN
Assistant Chief for Human Resources and
Professional Operations
BUMED, Code 3

When RADM Ed Rupnik called me, through his efforts, to the Bureau of Medicine and Surgery in the summer of 1969, I was warned that the worst fears I might ever have had, had now come to fruition. People told me of that deep, dark room in BUMED that they call the pithing room. I don't know whether they still teach physiology and pharmacology in medical school or not; I think they teach computer science. But if you remember, in the early days of drug testing we pithed frogs so they would not feel any discomfort, yet their reflex at the spinal level would remain intact. For the first several months I wandered around the Bureau in the fear that somebody would someday come with people in white coats and carry me off to the room to be pithed.

Nine years later, I realize that it is more insidious than that. They bend your neck, slip a pithing rod in, and advance it a micromillimeter at a time.

In all seriousness, it has been an interesting and very rewarding nine years. My very good friend Bill Jacoby came up to me this morning and said, "How are

things?" I sort of shrugged my shoulders and smiled. He said, "Something's happened to you, Bill. You're changed." I think what he was trying to tell me is that I had been pithed.

Seriously, all that has happened is not bad. All that happens in the future will not be good. But we try. And we have spirit and talent represented in this assemblage that is second to no other gathering of health professionals of any organization any place in the world. Now that's a simple statement of fact.

I know personally the integrity, the dedication, the intellectual capacity, and the work that you have accomplished to get where you are.

What makes our detractors so supercilious that they are about to tell us what we need to do? Well, first of all, they've got a *right* to tell us what they think. That's what this nation is based on. And when they look at us, we're in the limelight. As long as you're successful, irrespective of the source of that success, people will leave you alone. But the first time you show any sign of unsuccessful venture, the piranhas attack. That is the law that operates in all organizations.

We have to recognize that the people who are criticizing and detracting have the right to do so. And unless we look at our own shortcomings and come up with realistic proposals to correct those shortcomings, we are back in the ages of the witch doctor and the *ex cathedra*. It's true, because, as I said, all they're asking us to do is to stop involving ourselves in expensive process and show "how come" measures. How many more men and women are returned to their jobs, or to their pursuits in the home, or to the sports world for how many more days of productivity as a result of what we spend thousands or hundred of thousands of dollars to do?

As physicians, we must recognize that life is precious and it is our responsibility to make every reasonable effort to preserve life and alleviate suffering. But we're not in a world of unlimited resources. There are other competing imperatives—to steal the Surgeon General's phrase. In order to get our fair share, to do our thing on behalf of society, our Navy, and its eligible beneficiary population, we've got to come to grips with the rules of the game. And the game is an adversary relationship in

a three-year planning cycle to acquire funded spaces and dollars to do what we need to do. Insofar as we build sound programs on demonstrated need and requirements, with the passage of time and with articulate spokesmen these things will come about. Insofar as we fail to articulate clearly and substantiate with facts, we will fail to get our programs off the ground.

I've received my two weeks of training with CAPT Joe Pursch which I classify as one of the most important two-week periods in my entire professional lifetime. I've learned something else: that a lot of heart and a lot of patience and a lot of anti-frustration antibody will finally bring something to fruition. The alcohol abuse prevention program to rehabilitate and restore victims of this disease is very young. When it got started it not only suffered poverty because nobody would support it, but also humiliation because few people believed in it. But *somebody* believed in it—a guy by the name of Joseph Zuska. He believed so strongly that he gave up his pursuit of surgery and lived and worked for a year with no outcome in a small building at Long Beach. He then retired, followed his pursuits, and is internationally famous in the civilian community as a pioneer in the recognition of alcoholism and the rehabilitation of its unfortunate victims. In the good sense of the word, he was relieved by a Pied Piper by the name of Joe Pursch. Now the program is the envy of all organizations interested in this disease throughout the world.

Joe Pursch didn't get there easily, and the program's not where it ought to be yet. It has still got its hurts. I use that as a prototypical example.

We want the most outstanding training program in internal medicine we can have. We want the most outstanding training program for cardiology, or for surgery, or for—shall I say it?—"prenatal psychiatry." We have to eliminate the last vestige of the concept of the Bureau of the Naval Hospitals and make it the Bureau of Medicine and Surgery. We've got to eliminate the parochial attitude that the only place in the world is Naval Hospital X, Y, or Z. When it comes to working in concert, we've got to recognize that we have an entire system. Because if it were not for our immediate requirement to meet contingencies, small or large—to suddenly mobilize with an "Aye aye, sir" and be someplace else in the world within 24 hours—if it weren't for that, they could turn over our responsibilities and diffuse them throughout the U.S. medical system and foreign medical systems where we have bases overseas. We'd disappear into the bowels of the earth and in a few years be forgotten.

The fact of the matter is that no other organization can put 90 hospital corpsmen on Guam to help evacuate refugees and give them medical care. No other organization can put four physicians on four-hour notice and fly them to Guam for the same purpose. And when I say no other organization, I include our sister services, the Air Force and the Army. Then there's our responsibility to the Marines. Show me another organization that can

do that and I'll gladly take off my suit and retire into the civilian community.

And I'm just romantic enough and just naive enough to think that this imperfect, inefficient governmental system and philosophy is worth preserving. It's worth putting in a little bit of blood, sweat and tears, swallowing some of your own pride and your own parochialism, and making it work—even if somebody else appears not to appreciate it.

Medical Malpractice in the Navy

RADM William O. Miller, JAGC, USN
Judge Advocate General of the Navy

Although my topic, medical malpractice, is far from pleasant, it has reached such staggering proportions that both VADM Arentzen and I felt we ought to talk about it.

Some time ago, after I had read an article in *Navy Times* about a particularly distressing case of alleged medical malpractice—and being aware that the particular case involved was one that had been in my office for adjudication—I became concerned that perhaps the Secretary or the CNO might see the same article and might call me asking for information on this general problem. I therefore asked my staff to prepare for me a statistical listing of the cases which we had pending.

Although I personally addressed many cases on a case by case basis, I did not have a good feel for the extent of the problem—or stated otherwise, for the number of cases of alleged medical malpractice which we were processing. I was very surprised to find that we have a staggering number.

My latest statistics show that 149 medical malpractice claims against the Navy, totalling over \$168 million, are pending in the Claims Division of my office. Sixty-four of these claims, totalling nearly \$81 million, were filed just this year.

In addition, we are presently defending 110 lawsuits, totalling over \$128 million, which allege medical malpractice by Navy medical personnel.

These statistics do not include the 12 claims totalling \$27 million which were settled this year. Nor do they include claims settled by my field offices, lawsuits against us which were settled by the Department of Justice, or suits which resulted in judgments against us.

I had these statistics, but I didn't really know what to do with them. Neither the Secretary nor the CNO called.

A few weeks later, still wondering what if anything I should do with these statistics, I was talking socially with RADM Al Wilson and mentioned this problem to

him. He suggested that I drop him a line and give him the statistics. I did, and I am certain the invitation extended by VADM Arentzen to come here today was an outcome of this communication.

Hence, I think it is entirely accurate to say that both the Navy's chief physician and the Navy's chief lawyer are very much concerned about this problem. I think it's fair to say, too, that we are in agreement that there should be some affirmative action to attack the problem at its roots.

In giving you the above statistics, I realize that the amounts claimed are grossly exaggerated by the claimants for purposes of negotiation. However, it's also true that since the government is protected from claims by active-duty service personnel by the Feres doctrine,* these claims and suits are generated almost entirely by dependents and retirees. I say "almost" because there are, occasionally, claims from active-duty persons who hope to distinguish their cases from the Feres doctrine or who hope that theirs will be the case which causes the Supreme Court to reverse itself—an unlikely occurrence.

The statistics I gave, of course, relate only to the Navy, because the Navy is our chief concern. But it is my understanding that similar problems of similar magnitude exist in the other services, and also in the private sector.

A recent article, which I recommend to you, entitled "Medical Malpractice Claims Against the Army" and published in the 1977 Winter edition of *Military Law Review*, indicates that malpractice claims in the entire federal sector increased 255% between 1968 and 1971. The article also details specific problem areas which, again, are similar to those we are experiencing.

A survey completed just this week by the Armed Forces Institute of Pathology shows that from January 1975 to the present, that institution has been asked to review 1,615 claims of medical malpractice. Of this total, 702 cases were submitted by the Army while 345 were submitted by the Navy. Other contributors were the Air Force, the Department of Health, Education and Welfare, the Department of Justice, and the Veterans Administration.

In the past, both the Navy medical community and the Navy legal community have attempted to reduce the problem, but each has done so in its own field with not as much cross-referencing as there needs to be. The thrust of the medical answer has been to practice medicine more carefully, sometimes even to the point of practicing "defensive medicine." The legal thrust has been to attack the situation on a case by case basis, which means attacking the problem by minimizing the fiscal damage after a claim has been filed. This has

been accomplished by using technical defenses, such as the statute of limitation; by negotiating to secure favorable settlements; and by organizing for an effective defense of the case at trial. None of these legal techniques does anything to prevent the problem from arising.

What I would like to do today is share some ideas which have occurred to us and which I hope can be of help in our continuing attack on the problem. I suggest that we think in terms of three general areas of communication—or three Cs—where a little joint effort can produce significant results.

First, we've got to come to grips with the fact that there is some negligent medical practice in the Navy. It would be comforting to say that all these claims were frivolous, and that the conventional wisdom which blames the increase in such suits on avaricious attorneys is correct. But according to the medical experts to whom we turn for advice at the Bureau of Medicine and Surgery and the Armed Forces Institute of Pathology, there is merit to some of the claims.

The first area of communication, then, would be to increase the effectiveness of the communications link from the claimant through the Bureau of Medicine and Surgery to the field, so that the practicing physician will be alerted to areas of danger.

At present, the Claims Division in the Office of the Judge Advocate General is sending every claim of medical malpractice to the Surgeon General for his review. We do this for several reasons: one is that the claim—the dissatisfied customer's statement of a problem—is an excellent source of feedback from the patient's point of view. We send these claims over even when we know that a legal defense, such as the statute of limitation, is available. If a problem can be identified, even if there is a defense, then preventive measures can be taken.

The second point is that where there is a claim there really is some kind of a problem. The claim is the result of a dissatisfied patient. The patient's claim may not be actionable because of a legal bar, or there may simply be no merit to the claim. But for whatever reason, there is a problem and this problem is going to cost the government time and money to investigate, adjudicate, and if it is brought to trial, to defend.

Our experience has been that one of the primary causes for dissatisfied patients is the perception on the part of the patient—justified or not—that the treating physician simply did not care. Time and time again, plaintiffs' attorneys have said that their clients would never have sought legal advice had they not felt that they were treated cavalierly. This complaint is sometimes surprisingly apparent on affidavits sent in with the claim forms.

Often this dissatisfaction has nothing to do with negligent treatment. Conversely, negligence may be overlooked by the patient and no claim ever filed even though recovery would be certain. The difference here

*An outgrowth of the Supreme Court case *United States v. Feres*, which holds that an active-duty service member may not claim from the Navy or from the government for personal injury which occurred incident to his or her service.

—or so it seems to me—is patient rapport. The recommendation is to make a concentrated effort to keep the lines of communication open—to enhance our efforts in achieving genuine doctor-patient rapport. This may sound too simple, and perhaps even a bit presumptuous coming from me, but we regularly see claims which are direct results of lack of such rapport.

There is also a special need to fully and completely inform the patient of the options available when surgery is needed and the advantages and disadvantages of each option, so that when any particular procedure is begun, it is with the informed consent of the patient.

I realize that this is an area of paradox, because to suggest to a patient an untoward result may be to increase the risk that the undesired result will occur or to increase the risk that the patient, through unreasonable fear, will refuse to consent to a much needed medical procedure. On the other hand, to fail to fully inform the patient deprives the physician of the legal safety of proceeding with the patient's informed consent. The physician may be guilty of a battery, and responsible for any injury the patient incurs as the result of the procedure; the physician might also be found liable for breach of contract if too optimistic an opinion caused the patient to feel overly assured that the procedure would be a success. Between the extremes of guaranteeing success on the one hand and scaring the patient on the other, the physician should explain that success cannot be guaranteed, should explain the complications which could reasonably be anticipated, and should have the substance of this explanation, along with the patient's written consent, appended to the medical record.

The third area of communication is communication in the medical record. As I mentioned earlier, there are large numbers of specious claims but each claim must be investigated, adjudicated, and either settled or denied. If the claim is denied, or if the government takes more than six months to make up its mind, the claimant can file suit. So whatever decision is made, it must be carefully considered.

Although the plaintiff has the burden of providing negligence, his job is made much easier if there is no good record to rebut his version of what happened. And when I say "his version" I don't necessarily mean that the plaintiff is deliberately falsifying his testimony. The plaintiff may honestly believe his description of the facts, or he may be accurate as far as he goes but not know the whole story. Without a complete, legible medical history, the plaintiff can "prove" negligence by his own testimony combined with the expert testimony of some physician who can legitimately opine that the medical treatment, as related by plaintiff, was indeed substandard. The only thing left to litigate is the quantum of damages, and frequently the plaintiff's disability is beyond argument.

In such a situation the government can only rely on the memory of the treating physician, who usually



RADM W.O. Miller, JAGC, USN

"Medical malpractice problem can be reduced"

cannot remember the specific patient and must testify as to what his general practice had been. As you can imagine, these generalities are not as persuasive as the specific recollection of the patient who is able to recall in vivid detail every supposed negligent act performed during the course of treatment.

Actually, the government is fortunate even to have the treating physician available, much less the various assistants whose participation may be crucial. A claim may be filed many years after the incident, even though the Federal Tort Claims Act has a two-year statute of limitations, because the federal courts have construed the Act to mean the two years only begins to run at the time the claimant discovers or should have discovered that his injury was caused by negligent medical treatment. We recently received a claim from a dependent who alleged that a surgical instrument was negligently left in the abdomen at a surgical procedure which occurred 20 years ago.

When faced with the problem of an incomplete medical record and the lapse of years, the claims attorney must weigh the disadvantages of settling a claim which may lack merit against the greater danger that the threatened lawsuit will result in a tremendous judgment against the United States.

A plaintiff cannot recover for a simple error in judgment either for faulty diagnosis or election of treatment. A plaintiff *can* recover for negligence in failing to gather all facts necessary to make an intelligent diagnosis, for failing to consider all reasonable causes of the illness, and for failing to weigh all available treatment modalities. Unless the record reflects not only what was done but also considerations made for taking such action, the physician may have thrown away this impor-

tant distinction. The defense may be forced to take the position that the medical care was correct, not merely that all alternatives were duly considered.

There is no need for the fear of suit to result in needless or redundant tests, unnecessary consultations, or protracted observation. In fact, such overreaction to the problem is not only wasteful but counterproductive. From a legal standpoint, it is much more important to be able to show, on the record, that the proper considerations were made. For this reason, medical records should be prepared with the view that someone, perhaps years later, might have to justify what was done.

I was discussing this point with my wife last night. She said her medical records were models of completeness, then thought a moment and observed that she had never been subject to medical negligence. She suggested that negligence in preserving adequate records may be part and parcel of negligent treatment. I don't know about that, but it's worth thinking about.

In conclusion, I strongly believe that the problem of medical malpractice in the Navy can be substantially reduced. We can learn from our past mistakes if we establish an adequate and effective mechanism. We can increase our understanding and rapport with our patients if we make this a matter of priority. And we can protect ourselves and the Navy from unjustified accusation with good medical records, if we insist that every physician—not just some, but all—faithfully record their actions and their reasons for taking these actions.

Medical Department Issues Forum:

Introductory Remarks

CAPT William F. McDermott, MC, USN
Director of Clinical Services
NRMC San Diego, Calif.

We feel our system is at a crossroads: one road leading to mediocrity, the other to maintenance and expansion of the unparalleled traditional system we have known, cherished, and supported. The history of our system has been and will continue to be a mixture of pragmatism, scholarship, and philosophy, each in its broadest sense. But from time to time the system requires an opportunity, such as we have had this week, for ideas to be interchanged and for perceptions, anxieties, and hopes to be aired.

As the work of our committees progressed, certain pervasive themes became evident: loss of the Berry Plan with resultant "inbreeding" of our physicians; lack of ancillary support—technicians in particular; loss of teachers in the traditional specialties; loss of subspecialists, needed not only for patient care but to train graduates of our subsidy programs who are coming

aboard in significant numbers and whose professional maturation is vital to our getting well over the next several years; and finally, the future role of certain classes of health care providers in our system.

CAPT Richard Norton will lead off with a discussion of the inbreeding we fear may result as the Berry Plan ends. He will be followed by a number of officers who will discuss the effect of manpower shortages in specific areas.

I've asked our speakers, all specialists in their own field, to make their remarks pertinent to the group as a whole. What we hear from one specialty applies to all.

Life After the Berry Plan

CAPT Richard Norton, MC, USN
Chief, Anesthesiology Service
NRMC Portsmouth, Va.

Over the years of its existence, the Berry Plan has provided our educational programs with large numbers of physicians with varied backgrounds and experience. We valued and respected these Berry Plan physicians for the diversity of outlook and philosophy they brought to us and to our residents. But this bulwark against inbreeding of thought and technique will soon pass from the scene. How are we to maintain the freshness of our point of view in the face of the loss of such an invaluable outside influence? An examination of our options for widening the genetic pool of our training programs may help dispel some of the gloom we feel over the departure of our Berry Plan colleagues.

As a possible means of preserving originality and preventing stagnation in our educational efforts, we suggest the following:

- Integral parts of residency programs should be maintained and increased so far as funding constraints will allow. It has long been recognized that besides the increased specialized expertise our residents gain from such outside rotations, the prime value of these integral parts lies in the opportunity to exchange ideas with civilian peers and instructors. If the needs of the service permit it, scholarship students should be considered for civilian residencies. In areas where tri-service facilities are located, exchange of residents for portions of their training could prove valuable.
- Civilian consultants could be brought into our medical centers for two- or three-day visits, not only to lecture but also to give our staff physicians and residents the benefit of their experience and advice in clinics, operating rooms, and laboratories.
- All optional training beyond that required for board certification should be designated fellowship experience, making the trainees eligible for continuation pay. This policy would remove some of the financial disincentive which has discouraged residents from advanced education in the past.

- Full utilization of outservice training billets should be encouraged. Cross-fertilization may be accomplished by transferring graduating residents designated as teachers from one training program to another.
- Retention of proven teachers may be enhanced by instituting one-month or two-month sabbaticals in their fields of special interest. Likewise, restoration of the in-service visiting professor program will maintain the interest of our military teachers while benefiting the commands they visit. Also, prospective physician recruits should be interviewed by specialists in their fields to evaluate their potential as teachers.

Technician Shortages in Support Services

CAPT Richard Poley, MC, USN
Chief, Pathology Service
NRMC Oakland, Calif.

This has been a difficult year for laboratories, but I can't say we weren't warned. For six or seven months before SAC VIII last year, we were told to prepare for personnel losses that would go unreplaced for months. In September 1976 we were able to see the magnitude of the problem. It was obvious to the SAC VIII Pathology Committee that most medical laboratories would very quickly dwindle to almost 50% manning levels. Some hospitals faced their low point sooner than others.

But on the whole we were able to make adjustments to lessen the impact of the drain on skilled enlisted technicians. Stop-gap measures included longer hours, more frequent watches, curtailed services. At NRMC Oakland, as the situation worsened, I received generous support from my command, although our local resources were limited. Several general duty hospital corpsmen were provided for clerical chores. A few civilian technicians were squeezed out of the budget and our clinical colleagues were urged to use more restraint in ordering laboratory tests.

Fortunately, procurement of investment equipment for most of our large laboratories has been well planned and funded by BUMED in recent years. We are now well automated in the high-volume areas. Another plus is the fact that most labs are now adequately staffed with pathologists, although this may be only a temporary situation unless we keep our pathology residencies filled.

Many necessary functions have been deferred, such as maintenance, in-service training, and development of new tests. Such things can be put off for only so long: a day of reckoning will come.

During this past summer we began to see evidence of an upturn. New technicians are being ordered in now

that the fleet has reached 100% manning. Navy-wide manning levels for technicians are now at about 80%. Our schools are operating at capacity, and graduating students are coming to their first duty stations. If the trend continues, we can look forward to regaining lost ground.

Long-range solutions are needed, however. Better utilization and retention of technicians must be emphasized. Some specific areas to look at are:

- 1) Billet realignment based on actual productivity.
- 2) Improved career progression for enlisted technicians. We need to provide academic opportunities and Medical Service Corps commissions for the best of them.
- 3) Computers in large laboratories to free technicians from burdensome clerical work. In the last two months we have seen some signs of progress in this area.

The excellence of our graduate training programs depends on well-staff laboratories.

Manpower Shortages in Clinical Services

CAPT Oran W. Chenault, Jr., MC, USN
Chief, Urology Service
NRMC Portsmouth, Va.

The technician shortage is, I believe, the most serious problem facing us today. The gradual but progressive decline in numbers of hospital corpsmen trained in technical specialties has impacted heavily on our mission both directly and indirectly through corpsman and physician retention. Over a year ago, the Hospital Corps was said to be more than 130% manned. The basis for this manning allocation was archaic manpower authorizations that were inaccurate and did not reflect the modern needs of medicine. The CREO [Career Reenlistment Objectives] Program indiscriminately purged technicians who were serving their first enlistment, even if they had incurred additional obligation for schools or promotions. Quantity was the intent, with absolutely no emphasis on quality; "excesses" were rapidly deleted.

In most if not all naval hospitals, operating room time is a precious and premium commodity. The decreasing numbers of operating room technicians has further constricted operating room time, since the "watch" simply can't handle the volume.

Most surgical specialty clinics rely heavily on their technicians to perform the necessary procedures to accurately define a patient's problems before surgery. If these technicians are not available, studies are not performed, health care is not delivered, CHAMPUS referrals multiply, physician and technician satisfaction

diminishes, educational objectives suffer, morale becomes abysmal, and retention rates for physicians and Hospital Corps personnel plummet. And who can blame them?

In my own department we have 13 doctors, four technicians, and four general duty Hospital Corps personnel. This is about half of our requirement. For comparison purposes, the Urology Service at NRMHC San Diego has the same number of doctors, 18 technicians, and four general duty hospital corpsmen. The two programs are comparable in size. The service at NRMHC Oakland, by the way, has one technician and four general duty corpsmen. Why the maldistribution? I know that this is an old saw for most of you, but let's look at the statistics for ENT technicians:

- NRMHC Oakland: on board technicians, 6; allowance, 18.
- NRMHC San Diego: on board, 9; allowance, 18.
- NRMHC Philadelphia: on board, 3; allowance, 12.
- NRMHC Portsmouth: on board, 2; allowance, 6.
- NRMHC Bethesda: on board, 4; allowance, 8.

This is a total of 24 out of 62, or about 39% of our allowance.

The other impact that we mentioned concerns CHAMPUS. Last year's CHAMPUS bill for ENT services at NRMHC Portsmouth alone was \$700,000. That would pay a few civilian salaries (if we didn't have a freeze on civilian hiring).

There is yet another hurdle, and that's in the intensive care unit. Sometimes even after all diagnostic tests are done and operating room time scheduled, surgery still gets cancelled because there are not enough trained Hospital Corps personnel in the ICU. For this reason, replenishment or bolstering of one link does not offer a solution to the overall problem. All links of the chain must be approached, from the clinic corpsman to the OR technician to the anesthesiologist, the OR nurses, and ICU personnel. Replenishment must be synchronous. We are aware that this is a big order, but it must be accomplished for survival even if it means amalgamation of resources from other graduate educational hospitals.

In urology we're beginning to feel the bite of the loss of billets. We anticipate approximately a 30% reduction in urologists over the next two years. A few good recruits could offset our Berry Plan losses. To help recruitment, the Urology Committee would like to set up a Navy booth, staffed by the chiefs of services, at the National American Urological Convention to be held in Washington, D.C., next May. This will require support from BUMED and perhaps from the Bureau of Naval Personnel. It would have to be a first-class venture, with BUMED experts on hand with information about pay, promotional opportunities, and available billets.

Payback time for residency training is another source of contention. No one would question the great volume of work performed by the resident staffs in our major teaching hospitals, but we need to remember that these

are the highest paid residents in the country, who upon completion of training can look forward to even greater financial rewards. Our programs can stand on their own merits, and it does not seem cost effective to invest four years of education for a one-year payback. Why not a two-year obligation as a minimum and N-minus-one or even a one-for-one payback for longer residencies? There are many people in this room today who served one-for-one; perhaps you would not be here had you incurred a lesser obligation.

Some adjustment for scholarship students would be necessary. Perhaps they could repay primary obligated time while training, but while also incurring further obligation because of training.

In summary, our personnel shortages are acute and near crisis levels. We must develop contingency plans, even if it involves pooling educational resources. If we don't correct our ills, I'm afraid we're watching the demise of Navy medicine as we know it.

Navy Orthopedic Surgery

CAPT Paul H. Randels, MC, USN
Chief, Orthopedic Service
NRMHC San Diego, Calif.

The figures given two days ago by CAPT Carr* for the surgical specialties were a little disconcerting. He identified 81 billets for orthopedic surgeons and 122 fully trained orthopedic surgeons in the Navy. The Orthopedic Committee was able to identify 103 billets (as we understand the restructured billets), with 130 fully trained orthopedic surgeons on board. This sounds fat, but believe me we're not. I don't know anybody who feels overstaffed. Some of us feel adequately staffed but we see some ominous clouds on the horizon.

The projected losses versus gains makes the game a little more interesting. Our projected losses as of July 1978 are 56, with 11 orthopedic surgeons to be gained through our residency program and 3 Berry Plan physicians. So the net loss will be 42, leaving a work force of 88 trained orthopedic surgeons in 1978. Our gross loss for 1979 is estimated at 38, with 11 orthopedic surgeons gained following residency training. We will have no new Berry Plan physicians. The net loss of orthopedic surgeons in 1979 is 27, leaving a work force of 61. That represents a loss of 53% of our current strength.

The qualitative aspects of the problem are as follows: in 1976 we had 34 board-certified orthopedic surgeons in the Navy; in 1977 that figure dropped to 29, and 1979 we project that there will be only about 20 board-certified orthopedic surgeons on active duty, which is roughly 60% of the 1976 level.

*See "Medical Corps Manpower," *U.S. Navy Medicine* 68(11):9-14, Nov 1977

So qualitative and quantitative reductions are both on the horizon. We're talking about fairly certain losses, not possible losses. There are likely to be other resignations, but these are our best estimates.

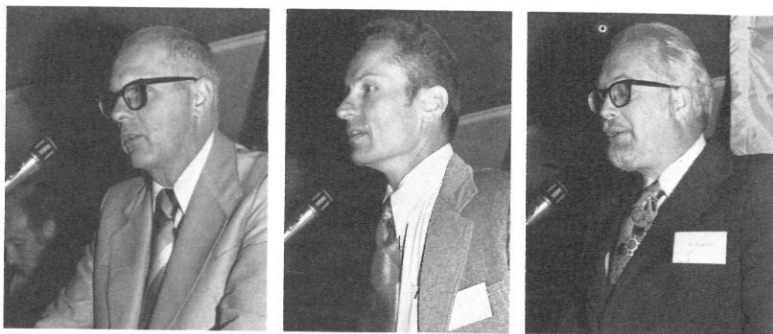
As a result, some 7 hospitals and also the Armed Forces Institute of Pathology will lose all their Navy orthopedic surgeons and another 26 hospitals are going to lose some of their staff.

What are we going to do about it? Well, I think the real question is what can be implemented and what can't. Are we going to phase out services at some facilities? Are we going to recruit trained orthopedic surgeons? And if so, won't that take much more than a booth at a convention to accomplish? We have not been particularly successful recruiting to date.

Are we going to cut certain services in certain facilities? Horizontal cuts will definitely decrease the attractiveness of medical practice in the Navy, as well as decrease our ability to train residents.

The more obvious answer is to cut our losses rather than to improve recruitment. What kind of measures can be implemented to make the Navy a better place to practice medicine? We've heard all kinds of answers to that question. I think that one of the more obvious solutions is to increase payback time. But if we do that, are we going to interfere with the number of applicants for our programs? This year we've perceived something like a 50% reduction in applicants for training in orthopedics.

I have posed a lot of questions and no answers. The primary answer must be to make the Navy a better place to practice medicine. This means better paramedical help, including numbers of Hospital Corps personnel. It means better nurse staffing, and better support from nonmedical sources, such as clerical assistance. Too often doctors are their own clerks. What a waste.



SAC speakers (L-R) CAPTs Smith, Randels, Davis

The staffs of our major teaching hospitals will require 50 radiologists, leaving only about 10 for the rest of the Navy. Our aim is to preserve our training programs.

So the loss of the draft and the Berry Plan has hurt us badly. What are our options? First, we can pool radiologists into the teaching hospitals and staff the rest of the Navy with contract radiologists. This is an expensive option.

Second, we can partially staff our teaching centers with contract radiologists from nearby universities. This is probably somewhat less expensive. Of course Navy radiologists in our teaching hospitals would have to have about the same amount of research time, the same amount of time for teaching, and the same equipment as the universities.

The third solution has already been covered: we can increase payback time. To some extent, this has already been done.

Fourth, we can centralize our facilities to a certain degree. We've already seen that we can have a Navy-wide Nuclear Medicine Service with electronic transmission of images to a central facility.

Fifth, we can use specially trained general medical officers and physician's assistants in the performance and interpretation of limited studies. We couldn't expect these people to do the job alone, but at least they could do some screening and separate abnormal from normal studies.

Sixth, we could hire nontechnical personnel to increase the efficiency of the radiologist. For example, about a third of the radiologist's time is spent putting up and taking down X-rays. If we used a multifilm viewer and had somebody to hang up and take down the films, we could probably increase our efficiency by about 30%.

It's obvious to us that we're going to have to concentrate our training in more formal courses such as those at the Armed Forces Institute of Pathology. We could expand our nuclear medicine course to encompass ultrasound and computerized tomography. Much of the formal training will have to be given in these courses.

We can also consider using automated film tracking and reporting systems. Being able to get our hands on films rapidly will certainly increase our efficiency.

The State of Navy Radiology

CAPT John P. Smith, MC, USN
Chief, Radiology Service
NNMC Bethesda, Md.

The major problem in radiology today and in the next few years is manpower. There will be a crisis. We now have on board 84 diagnostic radiologists and 5 radiotherapists. Next year we lose 34 radiologists, and gain 11—leaving us a work force of 61. The following year we will drop to 60 radiologists, but the year after that we move up to 65. These are estimates—and probably gross overestimates. These figures assume that no regular officers will retire or resign, that our residency programs will remain filled, and that residents will remain on board until 1980.

Internal Medicine Training Needs

CAPT John W. Davis, MC, USN
Chief, Internal Medicine Service
NRMCMC Oakland, Calif.

I recall that at the SAC meeting two years ago, in presenting the consensus of the Internal Medicine Committee, I discussed ways to provide effective primary care through various health care delivery systems. Last year the issue was billet/body realignment. In both meetings we addressed in a preliminary manner the role and career pattern of the Navy internist.

While these issues continue to have significant impact, two other overriding factors have profoundly influenced the deliberations of the Internal Medicine Committee this year:

1) Increasing sophistication of medical practice and technology, with attendant changing standards of care, requiring particular expertise to ensure accreditation of graduate training programs and appropriate patient management.

2) Critical need for internal medicine specialists and subspecialists in the Navy, compounded by cessation of the draft and loss of Berry Plan physicians.

Definitive action must be taken *now* to preserve present standards of care in internal medicine. We recommend expansion of training programs in internal medicine and its subspecialties at naval regional medical centers; and alleviation of the current critical shortage of teaching staff at Navy graduate medical training centers.

Of course, this is easier said than done. Billets and bodies would again be an issue. We urge, however, that the following approaches be considered:

- Maintain and possibly expand current internal medicine training programs. At best these programs now turn out 30 internists each year, if none go into fellowship programs. Without a major change in staffing levels, two additional candidates could be added to each program—a potential 38 new internists each year.
- According to current projections, NRMCMC Oakland will need at least two cardiologists and a nephrologist to maintain its program, and an additional chest medicine specialist is desirable. Current staffing levels are adequate for the next year at Bethesda, Portsmouth, and San Diego. Reestablishment or addition of a new general internal medicine program is considered unfeasible. However, use of regional facilities as training supplements could be considered, provided the facilities were staffed with qualified, motivated internists.
- Develop well-defined role models for general internists. The chief of service at a teaching center is often identified with frustration, paperwork, little time for patient care or teaching, and minimal opportunity for

clinical research. Increased support personnel could do much to change this image. A desirable role could be developed for the chief of service as well as for the staff of smaller naval hospitals affiliated in graduate training and mutual support functions with the regional medical center.

- Design all internal medicine training programs to last 36 months after internship, to allow the trainee to adjust from the operational medicine tour. This practice would prevent excessive attrition, particularly among trainees returning from more than one or two years of duty with the operating forces.
- Also, we must provide adequate ward medicine exposure and develop in-depth subspecialty expertise. The result should be an effective primary care provider and capable consultant. Certain candidates may leave after 24 months for fellowship training and duty with the operating forces if they are board-certified or eligible for board examination.

The following actions would help counter the critical shortage of teaching staff:

- Give priority assignments of billets and personnel to graduate training centers. BUMED should continually monitor both operational and graduate medical center needs. With current shortages, use of the pool concept for either sea or land deployment is considered an unsatisfactory but temporarily necessary contingency.
- Increase subspecialty billets.
- Offer internists who are completing operational tours an opportunity to return to significant roles in teaching centers where they can supplement the subspecialty staff in their areas of interest as well as help satisfy general internist requirements.

A number of internists completing operational tours would consider extending if they were given a significant role in a graduate teaching center. (This is, perhaps, a valuable retention factor.) These people might be effectively used as attending physicians, training officers, directors of intensive care units, or heads of outpatient services. The "mini-residency" concept would provide continuing medical education in general and subspecialty areas and a possible source of fellowship candidates. Returning these individuals would be preferable to retaining graduating residents, and supports Navy career patterns and retention. The operational experience after the GME-1 year and as an internist is considered ideal.

- Recruit physicians in critical specialties and subspecialties for specific medical centers. We should compete actively in the market rather than stay on the fringes in training groups. Bonuses paid to individuals incapable of performing as expected—particularly when sex or lack of citizenship precludes sea duty—have a very negative impact. Alternative assignments have many drawbacks.
- Assign selected physicians to graduate teaching centers at the end of GME-1 to relieve specialists and subspecialists of general medical officer duties. With

the critical shortage of medical and surgical specialties, and with adequate numbers of general medical officers, we can no longer afford the luxury of assigning subspecialists to general duties. As an example, at NRMC Oakland using four to six GME-1 graduates in primary care would effectively increase the overall subspecialty staff by 10%.

- Increase the cooperative participation of medical school affiliations to augment existing resources. Firm commitment to continued graduate medical training is essential, and mutual personnel obligations must be made well in advance of assignment for proper scheduling. University relations would suffer if agreements were not kept.

- Make proper use of our own triservice resources. Here also we must give firm support and commitment to Navy graduate medical education to compete effectively in this arena.

- Increase use of computer-enhanced clinical services, and make better use of paramedical personnel to reduce physician requirements and to supplement scarce Nurse Corps resources.

- Use a graduated ward care system to include intensive care, intermediate care, and minimal care wards. Such a system will help us make the best use of scarce nursing resources, and will improve our efficiency in using limited subspecialty expertise. It will help us maintain effective graduate teaching programs and permit appropriate supervision of intensive care units while maintaining the role of primary care physician—another way to establish a desirable role model for the internist.

While we have other areas of concern, the dominant concern is that every effort be made to prevent further limitation of internal medicine training. At this critical time, we ask the Bureau for definitive guidance, firm commitment, and positive support.

Navy Family Practice

CAPT Charles Gaudry, MC, USN
Chief, Family Practice Service
NRMC Jacksonville, Fla.

Within family practice there is a shortage of physicians and an apparent lack of any plan to correct the problem. On the positive side, there is a genuine enthusiasm from the fleet for additional coverage for active-duty members and their families. This enthusiasm has been found wherever family physicians have been assigned. We are also aware of the demand from thousands of Navy families for whom family practitioners are not available. In Charleston alone, 3,500 families are on the waiting list.

Physician and medical student demand for family practice training is so great that we can accommodate



SAC speakers (L-R) CAPTs Sears, Gaudry, Fornes

only one-third of applicants for such training. Of the 70 medical students who listed family practice as their first choice of training, we had positions for only 28. Forty-two applicants were rejected. What happens to these individuals? Most are unable to find top-notch civilian internships because of their military obligation. Many become disgruntled at being turned down for Navy training and subsequently lose interest in Navy careers. I might add that this is the third consecutive year in which family practice has had huge excesses of applicants—anywhere from two to four applicants for every training position. This is in line with the demand for family practice residencies throughout the country. Approximately 20% of all medical students want to go into family practice.

In his presentation, CAPT Carr reported a goal of 280 Navy family physicians by 1981. We now have only 85, so there is a deficit of 195 family physicians. Given the enthusiastic demand for these physicians, this projection may be low.

Our family practice training programs graduate 35 family practice physicians each year. With 100% retention, it would take six years to reach our goal of 280. With a more realistic retention rate of 33%, it would take close to 20 years to close the gap.

Four possible solutions are offered for consideration:

- 1) Increase training billets in pediatrics and internal medicine to help counter the demand for primary care specialists.

- 2) Increase substantially the number of deferments for civilian family practice training offered scholarship students not selected for residency training in the Navy. This would be another way of infusing new blood into the Navy system.

- 3) Increase the number of family practice training billets in existing programs.

- 4) Begin one or two new family practice training programs. NRMC Bremerton and NRMC Long Beach are both viable program sites.

In summary, we feel that the time has come for family practice to expand, and that we now have methods to do so.

Navy Medicine in Crisis

CAPT H.J.T. Sears, MC, USN
Chief, Psychiatry Service
NRMCM Portsmouth, Va.

As I look back at the history of these conferences, it is clear that the promise of Navy medicine embodied in the early SAC meetings is missing. The rejuvenating stimulation of new ideas, the vibrant open discussion of problems, and even the promotion of camaraderie are in large part gone. The recommendations from the early SAC meetings, the possibility of meaningful evolution and the changes needed to promote more satisfying practices have not been realized.

A few years ago it became painfully apparent that we were threatened. There were indications of internal illness, perhaps disease. We took a very defensive position. No, we won't put medical officers on ships. No, we won't move out of hospitals. We had problems coping. There was little flexibility in adapting to a changing reality. We denied that we had to change if we were going to survive. Things would get better. Our traditional approaches would win out.

Next came anger. Why are you trying to tell us how to practice? Why is this happening to us? We're such good guys.

This year the mood has changed. There is increasing evidence of apathy and withdrawal. Widespread conversations about retirement are heard.

What I've just described are the stages of dying. First denial, then anger, next apathy and withdrawal, and finally resignation (double entendre intended). We're in a crisis that could be fatal. We sense it, but are reluctant to acknowledge the reality of it. And unless we do, we will be unable to deal with it effectively.

Gentlemen, we're behind the times. Our goals and objectives are not clear. Our management is faulty. We struggle in a hundred different directions. We say we need more people when perhaps we do not. We believe money will solve problems that it will not. And we have no organizing concept that puts into perspective the multiple complex systems with which we deal.

Where does a presentation about alcoholism fit into this picture? What was the message? I wondered why physicians were so impressed with the concern for people or the importance of interpersonal relationships expressed in that session. I wondered if physicians were aware of other mismanagements in their practice, and if they did not take into account the psychological and social aspects of their patients.

Then it struck me! The alcoholism program presented a model for good health care. What were the elements of that model? First, there was an organizing concept which could be simply stated and understood, and which included not only the biologic but also the social and psychologic aspects of the problem. There was the involvement and support of the consumers and the providers, particularly involvement of the Line. There were uniform approaches and policies among all facilities. There was reasonably good management. Facilities were placed where the people were. Prevention and early detection were stressed. Ready accessibility for evaluation and treatment were aspects of the program.

Of most importance, continuity of care was a strong feature of the program. There were provisions for support systems and networks. There was an effective educational program which involved concern for the individual and the recognition that relationships cure, not medications or technologies. The treatment recognized that others besides the physician are critical to care and rehabilitation, and taught patients how to live with a chronic disease in a healthy way.

Our current system of health care delivery and education remains essentially unchanged from an earlier time when specialization and technology were less developed, when money flowed freely and manpower could be managed like unlimited spare parts. But we now recognize the cost of developing hospital-based services, the gap between resources and needs when education does not harmonize changing needs for service and illness treatment priorities; and we recognize the risks for quality care when consumers and practitioners have too much freedom of access to costly and complex therapies.

The absence of a Navy health policy which states the role of all parties obscures the changes and contributes to piecemeal and contradictory solutions. Basic decisions are needed quickly. How do we differentiate between ambulatory and hospital-based services? What options should we emphasize: disease prevention and health maintenance? diagnosis and treatment of routine medical conditions? counseling of the worried well and incurably ill? control of referrals to ensure optimum use of costly specialists and hospital services? Can we develop a foundation of simple and inexpensive services organized to ensure controlled referrals so costs can be controlled, specialists can truly practice their specialty, and each practitioner can gain satisfaction from his or her efforts?

Let us face the crisis squarely. It doesn't have to be fatal. Let us pray that our good colleagues who have made so many outstanding contributions will decide to stay with us. And let us lead the way nationally in developing a health care system which provides all our people with ready access to excellent treatment which is not only justifiable in cost, safety, and efficacy, but which is also compassionate.

*A panel discussion dealing with alcohol abuse was held during the first plenary session but, to protect the privacy of the participants, was not published in *U.S. Navy Medicine*.

Our Family Advocacy Program

CAPT Vernon L. Goller, MC, USN
Chief, Pediatrics Service
NRMCMC Oakland, Calif.

I would like to discuss the role of the Medical Department in a family advocacy program. Spouse abuse and child abuse are major problems in both the military and civilian setting. Each of our hospitals has an instruction, prepared in response to BUMED Instruction 6320.5 of 3 February 1976, which deals with the problem of child abuse. A similar program for spouse abuse is being developed. However, we are unable to fully carry out the important task of child advocacy, let alone family advocacy, with our current work force. The important missing ingredient is supportive social work personnel.

Right now, we function at the level of the three R's: recognition, reporting, and referral. We need to replace referral to often overburdened community resources with an in-house capability for rehabilitation. A family rehabilitation program could not help but be an important step forward in health care delivery. Rehabilitating previously trained personnel is a less expensive way to meet Navy manpower needs than starting from scratch with a new individual. Rehabilitate and retain, not remove and recruit.

Abuse in the family affects each member of that family and will result in the loss, physically or functionally, of the active-duty member from his job, be he the abuser or the abused. This significant medical and Navy problem must be addressed with determination and appropriate professional resources. Family advocacy programs need strong support from within the Medical Department. We must also educate the Line to the seriousness and the cost of family abuse; we must encourage them to be alert to possible family abuse, to report the abuse, and to arrange for treatment or rehabilitation.

To provide that treatment, the Medical Department must expand its resources to include the social workers and administrative support that make the program viable. Group therapy and parent effectiveness training groups, such as Parents Anonymous, have dealt successfully with families who have problems. These groups are a more effective method of rehabilitation than the traditional doctor-patient relationship. The social workers provide group leadership and follow-up for families identified as abused.

A pilot program involving four of our naval regional medical centers has been approved and is being developed. This can only be the beginning of our family advocacy efforts. All our facilities will require resources to do the job properly. Social workers in the Navy are a

rarity: only 1 per 170 physicians. In our sister services the average is about 1 per 15 physicians.

We recommend that the Navy Family Advocacy Program receive the highest priority. This type of preventive and rehabilitative medicine is a cost-effective approach to this increasingly recognized problem.

What Next for Subspecialists?

CAPT Michael F. Fornes, MC, USN
Chief, Gastroenterology Service
NRMCMC San Diego, Calif.

Who is going to train the trainee? The Bureau of Medicine and Surgery's manning document identifies 143 subspecialists in internal medicine, but in reality, only 101 of these physicians are practicing their chosen subspecialty. Although this number does not represent the excess of subspecialists we so frequently heard about in the past, it probably is adequate for our needs at this time. In September 1978, however, this figure of 101 internal medicine subspecialists will be reduced to 69. In September 1979, it will drop to 56, and in September 1980 to 45. These figures include our yearly output of fellows.

Let's take a look at his problem from another perspective. In September 1980, we will have on board 10 gastroenterologists, 10 cardiologists, 10 hematologists, 4 medical chest physicians, 4 endocrinologists, and 7 nephrologists. These figures have a critical impact not only on internal medicine subspecialties, but on every other specialty supported by these subspecialists.

Many of our proposed recommendations have been suggested already by other speakers. We have too few innovative recommendations. Nevertheless, we urge that immediate action be taken to realign subspecialists presently in nonspecialty areas and place them in areas where their subspecialty skills can be utilized. We urge moderate and controlled but urgent expansion of critical training billets. We urge that everyone here return to his hospital and make a positive attempt to improve retention of the younger medical officers who may not be sure of their plans.

In our own dealings with internal medicine subspecialists, our most difficult task was designating our own projected replacements. We have no middle management in the subspecialties. It's a dwindling resource—almost a nonexistent resource.

In summary, internal medicine subspecialties are experiencing a critical loss of trained physicians. Many recommendations have been made. Gratefully, in some instances action has and is being taken. From the figures we have outlined for you, it is obvious that by 1980, without adequate retention and recruitment, we will be training only for training's sake.

DISCUSSION

VADM W.P. Arentzen, MC, USN: I would like to clarify why CAPT Pursch was on the program. When I first mentioned having the alcohol problem discussed, there was some question about whether it belonged at SAC. I believe that perhaps some of us don't recognize the enormity of the alcoholism problem within the Navy. There are an estimated 40,000 or 50,000 alcoholics at a minimum. The Line's been way ahead of us in recognizing the problem.

The cornerstone of our entire program is physician education, and so far we've had a lot of physician reluctance to support the program. I'm sure a lot of you know we've asked all of our medical flag officers to go to the two-week training program at Long Beach, as well as all directors of clinical services, directors of administrative services, and chief nurses. We'd also like you to get your residents there. We're not on a witch hunt. We're just trying to get physicians to be more aware of alcoholism in their patients.

Inbreeding resulting from loss of the Berry Plan is of great concern to me. I think we're going to have to send more people to outservice training, otherwise we'll have all Navy-trained people. I think we have to use more and more of our civilian consultants, and we can also get some of our Reserve personnel: they're welcome to come aboard for two weeks just for teaching. I've even had a suggestion from the dean at Vanderbilt University: he's sure we can get some of the deans there to take a sabbatical from their jobs to help us.

For too many years, we've taken the Berry Plan for granted. We had 800 new physicians each year, so why worry about keeping any we already had? Why keep a physician when we're going to get 800 more? What a waste of a valuable resource. We didn't make them feel wanted. Some of those doctors have never been approached about their career plans. Some regular Navy doctors resigned without being approached by their chief of service or commanding officer. The first one to talk to them was the Surgeon General.

We are already looking into the possibility of deferring scholarship students in 1979 and maybe 1978 if we can get the operational billets filled. Some of our scholarship students have had considerable difficulty this year getting an internship. One of them went into a medical internship but couldn't get it funded because he couldn't guarantee staying in it for three years.

A few months ago I was talking to Admiral Holloway about our personnel shortages and I said, "But don't worry, the fleet will be 100% manned." His immediate response was, "That's not what I mean by 100% manned. I think we have doctors at sea who are wasting their time. I've been on board ships where the doctors go around trying to find patients to operate on."

I couldn't believe what I was hearing. That's a complete waste of a physician. One physician at San Diego went to Australia with a destroyer squadron and the commodore's ship and the other four ships spent their time in Yokosuka. However, we then went out to each fleet commander in chief to ask about taking physicians off the ships; they refused—and they control the billets, we don't.

When I go around to the hospitals I try to meet with the enlisted people. They feel as though they're just taken for granted. As I said the other day, How many of you thank them? How many of them get a medal? Last year at Bethesda not one operating technician reenlisted—not one.

The urology booth sounds great. There's only one problem.



VADM W.P. Arentzen, MC, USN
"I am committed to first-rate training programs"

You don't get a good, well-trained urologist to come aboard as a lieutenant commander, and you can't bring them aboard any higher.

Radiology is one of our problem specialties. I'm told that the Army has hired a former Air Force radiologist for one year at a cost of \$211,000. We can't keep up with money like that. We just have to try to make our working conditions and job satisfaction a little better. It's hard to do when you've got a place like Oakland with one X-ray reading room for 10 or 11 radiologists.

The pool concept, which we had to fight for last year, is still going. I got a letter from one of our internists the other day who went aboard an LPH in Norfolk. He wants the pool concept continued, but he also realizes that the ships are suffering because of it. He couldn't even find instruments aboard ship to remove wax from the ear or to take foreign bodies out of an eye. He expressed grave concern over what's happened to some of our ships at sea.

The Line thinks family practitioners are great. We just don't have enough training billets for them, so we have to try to increase the allowance for family practice training on the outside. It's going to be hard to get more billets.

The DOD Health Council members had to go to Congress the other day to show how variable incentive pay has helped retain people. VIP is up and retention of medical officers is up. It shows that VIP is paying off.

Last December I asked our commanding officers to establish patient education programs to let our beneficiaries know that they are responsible for their *health* care and we are responsible for their *medical* care. The more we educate patients, the less they'll abuse our facilities.

I agree we need in-house social workers. It's hard to get the Medical Service Corps to realize we should have social services. We've been trying for a year.

RADM J. William Cox, MC, USN: I've been through the reports of the various SAC committees for its entire nine-session history. It seems to me that the messages we've heard this year are about the most thoughtful, most reasonable, and most innovative recommendations that have come out of any

of these conferences. We're saying we have problems. We're not conning each other. But I think there is recognition on the part of all the chiefs of service, the directors of clinical services, and the commanding officers, that we at BUMED are not ogres. We're trying to help solve your problems, but we need the ammunition—and I can tell you that I think I've heard enough ammunition in these very thoughtful and highly personable presentations to keep me going at least another three or four years.

As soon as we knock down the adversary relationship that used to exist between the chiefs of service and the people in the Bureau, and as soon as we build in the Line an understanding of what an asset Navy medicine is, I think we can begin to overcome some of our problems. Just don't throw in the towel and give up prematurely.

I was asked to comment on payback time. I think that this policy is under revision and that we will eventually increase payback time to achieve better use of our physicians. We want to be careful, however, that we don't knock the doctor in the head and kill him. So we have to approach this very, very carefully. But the idea is to return to a minimum two-year payback time on a residency, irrespective of prior service. But we still have to get a tri-service position on this.

CAPT Joseph Cassells, MC, USN: There's been a great deal of controversy about the interpretation of partial payback versus full payback for variable incentive pay. We have elected to join the Army's position regarding that proposal. Now this requires approval through our system first, but we don't expect any difficulty. What this will mean will differ for different medical officers, but essentially where a medical officer now draws partial VIP during a fellowship and during payback time for that fellowship, in the future he will continue to draw partial VIP during fellowship training, as he does now, but upon completion of that training he will receive full VIP.

RADM Cox: I'd like to clarify another issue that may not be well understood. We have a worldwide distribution of health care facilities which must be manned. While all the details have not been worked out, the general plan to accomplish this is to give an individual, after his first year of graduate medical education, experience serving the community he will serve for the remainder of his active-duty career. This is not a break in education. It is the modern educational practice: study for a year, work for a year, return to professional studies to complete basic specialty training in family practice, internal medicine, or some other specialty. This training would be followed by experience working in that basic specialty, with subsequent subspecialization so far as we need subspecialists to operate our system. That is the general road-map showing where we wish to go, but obviously we are not going to let critical shortage areas with training capability remain unfilled.

CDR Walter Godfrey, MSC, USN: First, I'd like to talk about the CREO program. It was described earlier as a disaster. The statistics do not uphold that opinion. Close to 80% of the people requesting reenlistment or extension were granted that privilege. Very few of the personnel who opted for other ratings were accepted. We feel we lost only poor performers. We were forced to reduce our numbers and the CREO system allowed us to select and retain the best.

As for the operating room technicians, right now our manning is 670 people for 801 billets. That includes approximately 126 OR technicians who are with the Marine Corps. We are working with the Marine Corps in an attempt to reduce their

manning and allow us to use these technicians in our hospitals.

Our training plans are being adjusted on a month by month basis in those volatile specialties where there is historically little potential for reenlistment. Within our capacity we will train to replace all technicians who are scheduled for discharge in any given year. Since some will reenlist we can expect to have some excesses, but I believe this will help the "peak and valley" situation we have faced for many years.

In the urology technician area, we now have 10 technicians in training and 68 on board for 77 billets. We will increase the quota by 10 to bring it up to meet anticipated losses.

I want to expand on the Surgeon General's question, "Have you said thank you to a corpsman lately?" All too often we ignore our enlisted personnel. We not only fail to say thank you, we also fail to recognize the deep interest most of them have in what we are doing and their sincere desire to learn and to be part of the team. Somehow, over the past decade, a lot of the closeness has disappeared in our Navy Medical Department relationships. We're inundated by our own problems. We tend to exclude others and their problems.

I remember in my time as a ward corpsman, the "ward" medical officer was a person who knew my name, knew where I came from, and took time to teach me how to accomplish various procedures. He even helped fill out my study guides for advancement in rating. I was important to him and I was made to feel that I was an important part of the hospital, the Medical Department, and the Navy. I realize we can't go back and relive those times—the ward medical officer is gone, and times and methods have changed—but the basic tenets of leadership are still required of all of us. As teachers, as physicians, and as naval officers, we all have a responsibility to the people who perform under our direction.

We lose approximately one-third of our technicians every year. Who makes an effort to retain these people? Career counselors and leading chiefs cannot do it all. Everyone in the chain of command has responsibility and each department head should ensure that the effort is being made. We can't promise any rewards for reenlistment beyond what other sailors receive, but if we've created the feeling of belonging, we have taken a large step forward in solving some of our problems.

Involved in all your exchanges with hospital corpsmen there should be a working knowledge of their distribution system—the system hospital corpsmen live by. I frequently receive telephone calls from officers who ask for action that is completely out of line with reality. An example: "Walt, I need some help. I've had a man three months and I've been training him intensely. Now he has orders to sea. What can you do about it?" My answer must be, "Not too much. Why did you train a man who had an imminent rotation date?" The answer is usually, "I didn't know."

This last minute appeal has a poor success rate. I implore you to learn the distribution system. Learn what NMP is, what an EDVR is. It is not difficult or time consuming. A few hours with your personnel officer and you'll have an understanding of what goes on. Those people I have dealt with, who have taken the time to learn, know how to use the system for their own good—and most important, not at someone else's expense.

We should try to correct the faults we find in the system, but to take a negative attitude and criticize without knowledge is putting your head in the sand. Again, I ask, learn the system; use it to your benefit. I believe that as managers and

leaders you have that responsibility. In the long run the Navy Medical Department will benefit.

RADM Maxine Conder, NC, USN: I'm not sure what it means that no one so far has addressed questions to the Nurse Corps. Maybe it means we're in pretty good shape.

Our recruiting is very good at present. That does not mean we have adequate numbers of Nurse Corps officers, so please don't go back and say that the nurses have no problems because then I get calls wanting to know why everyone has to work so hard. Our numbers of direct accessions and applications have climbed. We've had no difficulty in meeting our numbers. Unfortunately, and I'm not quite sure why, over the last couple of months we're finding our declination rate is climbing very quickly. I think that in our October class at Officers Candidate School at Newport, 50% of them declined. We had to fill in.

A month ago, VADM Arentzen asked me to put in for some uncompensated Nurse Corps billets; unfortunately, we found that we didn't have quite the data we needed to support the request. We hope over the next few months that we will be able to get it.

The chief nurses are meeting with me tomorrow, when I will challenge them to look at the organization of their hospital's nursing service. I think we have relied too long on traditional organization. I believe that senior nurses, who have true bedside expertise, need to be placed back with the patient. I think it can be done, and it ought to be much more satisfactory for them.

We have recently been working on our billet structure. We're trying to identify the talents that we have within the Nurse Corps. I can say very proudly that we have some fantastic talent. But instead of every Nurse Corps officer being considered a generalist in nursing, we hope that when you tell us you need people prepared for the operating room, or someone who could take over for the charge nurse in the critical care unit, we will tell you who we have available in those fields. I'm still convinced we need an additional 500 Nurse Corps officers.

RADM Joseph Horgan, MC, USN: I'd like to address CDR Godfrey. Basically, I think you're not hearing our message. The system which you're asking us to live with has not been meeting our needs. We ask that the system be looked at anew. We cannot continue to manipulate it, even with your guidance, and survive. We're going to have to look at other methods. And I think to ask us to continue living with something that has been unsatisfactory is not in any way helping meet the needs that everyone has been expressing here today.

CDR Godfrey: Admiral, I understand fully what you're saying. However, the enlisted distribution system controls the entire Navy, and no matter what we think of it, it's here and we must live with it. We have pointed out and continue to point out problems. The system came in approximately seven years ago and handles over 500,000 enlisted personnel in the Navy. It details approximately 12,000 hospital corpsmen who are *not* within BUMED-managed activities and the 12,000 who are under our claimancy. We cannot divorce the BUMED numbers from the rest. Sea/shore rotation demands integrated distribution. The system may not meet all our demands, desires, or needs, but basically it performs its mission. If the mechanics of the system are understood, it can be used to our benefit. The system has built-in alert mechanisms that tell far in advance what is to happen. To ignore these signals or to fail to recognize their meaning will result in prob-

lems. Vigilance and understanding make the system workable.

Another point, the distribution system only reacts to billets. If our billets are not correctly distributed, not correctly identified as to need, or constitute a less than sufficient number, the fault does not lie with distribution but with the billet mix. Maldistribution based upon a lack of good criteria and an ever-increasing and changing workload that we have difficulty measuring is the prime cause of our difficulties.

VADM Arentzen: We still have to get more of the billets under the control of the Surgeon General. We have to get some of those laboratory or operating room technician billets off the ships where they are wasted. Right now we're short 2,000 hospital corpsmen. The CNO has allowed us to have about 24,500. First we have to get up to that authorized number, and then we can ask for more.

CAPT Douglas Knab, MC, USN: Obstetrics is in the same shape as most other specialties. Next year we will drop from 166 practicing obstetricians down to 96. With billet realignment our billet structure was 142, but we have been down to 129 since spring so our billet structure was dropped to 128. It then looks like we have one excess obstetrician. Our problem is that this coming year we will drop to 96 OB specialists and I'm trying to figure out how we are going to manage with some 30 physicians short next year.

CAPT John Carr, MC, USN: You're absolutely right. We're working with CAPT Jim Quinn and his planners in the BUMED Planning Office and we're thinking of alternative ways of getting the babies delivered if we're 30 obstetricians short. The babies are going to come no matter what we do, and we have to have an alternative answer. We may have to use CHAMPUS more in some areas. We may have to look at vertical cuts, horizontal cuts—but we're looking at new ways of meeting the need.

Although I talked about numbers the other day, it's not the numbers that are important. It's the *people* that are important, the individuals. As far as retention, if you know somebody you want us to contact, jot his or her name down, hand it to anyone on our staff. The number of personal phone calls that go out daily from RADM Cox, other flag officers, and VADM Arentzen himself are countless. It's an individualized effort, and BUMED does care. We'll work to solve those problems.

VADM Arentzen: Let me emphasize again, I am committed to first-rate training programs. If I see some are falling, we will have to close them down. We cannot train second-rate physicians. I need your commitment and your help. There is not a one here that I can afford to lose. I need more like you.

I urge you to communicate with your residents and your staff, identify the potential teachers, allow your staff to help you, and be innovative.

This is a varied Medical Department, too. Tradition is a good thing, but when tradition becomes the only reason we're doing something, then tradition must go. We must be flexible.

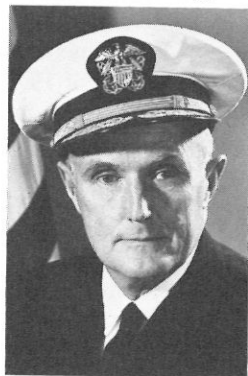
Above all, we must be responsible, to each other and to our patients. I have an open door policy. If you're ever in Washington, I expect you to stop in and see me. If you have any suggestions, write me a letter. Mark on the outside "Personal Attention." I'm the only one who opens it. And use the telephone; give me a call. We're all in the same Medical Department working for the same end. We're all here to do our best to make Navy medicine viable. Thank you very much for your efforts, and have a safe journey home.

Notes & Announcements

IN MEMORIAM

VADM Robert B. Brown, MC, USN (Ret.), 24th Surgeon General of the Navy and 28th Chief of the Bureau of Medicine and Surgery, died 12 Nov 1977 at the age of 69.

VADM Brown was born in Meadville, Pa., on 29 June 1908. He attended Allegheny College and the University of Pennsylvania School of Medicine. Following an internship at the University of Pennsylvania hospital, he attended the university's graduate school of medicine, receiving a doctor of science degree in surgery. VADM Brown also had two fellowships at the university—the first in thyroid and neurosurgery, and the second in general surgery.



VADM R.B. Brown
1908-1977

He reported for active duty in the Navy in 1942 and was assigned to the surgical service at Naval Hospital Philadelphia. In 1943 he was assigned duty in the hospital ship *USS Solace*.

After serving as chief of surgery at Naval Hospital Annapolis, Dr. Brown joined the hospital ship *USS Tranquility* in 1945. He later returned to Naval Hospital Philadelphia to serve as assistant to the chief of the surgical service.

During the Korean conflict, Dr. Brown was chief of professional services and chief of surgery in the *USS Repose*. In conjunction with operations in Korea against enemy forces from 20 Sept 1950 to 12 July 1951, he was awarded the Bronze Star Medal. The citation reads in part:

Throughout this period CAPT Brown rendered outstanding service to his patients and directly supervised the surgical treatment of all casualties admitted to his section. Exercising exceptional professional skill and a thorough understanding of the scope and importance of his assignment, he was largely responsible for the excellent care given to the more than 8,000 patients admitted to the hospital and was greatly instrumental in saving the lives of many more stricken men.

In 1951 Dr. Brown reported as chief of surgery at Naval Hospital Bethesda; while there, he also served as clinical (adjunct) professor of surgery at Georgetown University School of Medicine. In March 1960 he was named commanding officer of the Bethesda facility, and two years later was named CO of the National Naval Medical Center.

He joined the Bureau of Medicine and Surgery in 1963 as assistant chief for personnel and professional operations. In June 1964 he was designated deputy and assistant chief of the Bureau, and in January 1965 was

appointed Surgeon General of the Navy and Chief, BUMED.

After serving four years as Surgeon General, VADM Brown was transferred to the retired list of the U.S. Navy on 1 Feb 1969.

In addition to the Bronze Star Medal, VADM Brown was awarded the Distinguished Service Medal, Asiatic-Pacific Campaign Medal with one star, American Campaign Medal, World War II Victory Medal, National Defense Medal with bronze star, Korean Service Medal with five stars, United Nations Service Medal, Antarctica Service Medal, Expert Rifleman Medal, Expert Pistol Shot Medal, and the Korean Presidential Unit Citation.

VADM Brown was a fellow of the American College of Surgeons and a diplomate of the American Board of Surgery. He also was a member of the Philadelphia County, Pennsylvania State, and American Medical Associations; the Society of University Surgeons; the American Surgical Association; the International Surgical Society; the Philadelphia College of Physicians; the Halsted Society; the Eastern Surgical Association; the Society of Vascular Surgery; the Southern Surgical Association; and the American Association for the Surgery of Trauma. He was an associate member of the Clinico-Pathological Society in Washington, D.C., and the Philadelphia Academy of Surgery.

In 1962 Dr. Brown received an honorary doctor of science degree from Allegheny College, and in 1965 received an honorary degree of doctor of medicine from the Catholic Medical Center, Seoul, Korea.

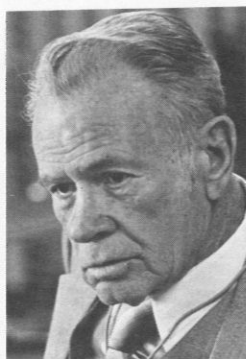
CAPT Mark S. Curtis, MC, USN (Ret.), a former Navy urologist who served 21 years with the Navy Medical Corps, died 3 Sept 1977 in Bakersfield, Calif.

Born in Guam, Dr. Curtis was a graduate of Stanford University and the University of the Pacific. He completed the basic course at the U.S. Naval Medical School, and received residency training in urology at naval hospitals in Washington, D.C., and Bethesda, Md., and at the James Buchanan Brady Foundation, N.Y.C.

Dr. Curtis began his naval career in August 1939 at Naval Hospital Brooklyn. Subsequent assignments included duty with the 1st Marine Brigade in Quantico, Va.; in *USS Rapidan* (AO-18); with motor torpedo boat squadrons in the South Pacific and with naval forces in the North Solomons; and at Naval Hospitals Mare Island, Oceanside, and Oakland, Calif.; and Yokosuka, Japan.

CDR Richard Jewell, USN (Ret.), who helped establish the Navy program for prevention and treatment of alcoholism, died 7 Sept 1977 following cardiac surgery.

Born 27 June 1905 in Avery, Okla., CDR Jewell earned a master of science degree in engineering from Oklahoma State University. He was commissioned a LTJG in the Naval Reserve in January 1942, and served on full-time active duty until his transfer to inactive duty in September 1945. He was recalled to active duty in October 1950, and served until October 1957 when he was separated on disability retirement.



**CDR R. Jewell
1905-1977**

Eight years later, after defeating his own problem with alcoholism through the fellowship of Alcoholics Anonymous, CDR Jewell began full-time, volunteer work with alcoholics at Naval Station Long Beach. In 1969 he became a staff member of the Navy Alcohol Rehabilitation Center there. He retired from this post in June 1975.

On 19 March 1976, the Navy Surgeon General presented CDR Jewell with the Distinguished Civilian Service Award in ceremonies at the Bureau of Medicine and Surgery. The award, one of the highest ever given a worker in the field of alcoholism treatment, honored CDR Jewell's pioneering role in developing an alcohol treatment program that became a model for similar programs throughout the Navy.

"I wanted to help people on the base who needed it," CDR Jewell said in a recent interview. "I began thinking about all those uninformed doctors, and wanted to show them there was a way out for alcoholics. Everything wasn't roses right off; we had to fight battles from top to bottom to keep our clinic on base."

In 1967, two years after it was established, the Long Beach "clinic" received official recognition and became the Navy's first alcohol rehabilitation center. Today, there are four major rehabilitation centers at naval bases around the country, 15 smaller units at naval hospitals, and more than 50 local facilities at commands worldwide.

Of his role in breaking ground for alcohol treatment in the Navy, CDR Jewell recalled recently, "I had the problem myself and beat it. I knew others could, too. I'd been in the Navy and so took my ideas to them. If I've helped, that's what I started out to do, and that's all I can ask for."

LT Stuart C. Jones, DC, USN, a Navy-sponsored 1977 graduate of Georgetown Dental School, died 20 Aug 1977 while mountain climbing near Telluride, Colo. He was 31.

An experienced climber, LT Jones celebrated his graduation last June by scaling the 25,645-foot Nanda Devi in the Himalayan mountain chain. He was the first naval officer to accomplish this feat.

LT Jones, who was president of his graduating class

at dental school, was scheduled to report to his first duty assignment at the Camp Pendleton Dental Clinic on 1 September.

USUHS LAUNCHES GRADUATE DEGREE PROGRAMS

The Uniformed Services University of the Health Sciences will offer accredited graduate degree programs in the basic medical sciences beginning with the fall semester of 1978.

Master's and doctoral degree programs in anatomy, biochemistry, medical psychology, microbiology, pharmacology, physiology, and preventive medicine will be open to qualified military and civilian applicants. The courses of study are designed for outstanding individuals with a strong commitment to permanent careers in the basic medical sciences.

Deadline for applications for the Fall 1978 semester is 1 March 1978.

Competitive selection of students will be based on undergraduate and postgraduate academic records, letters of recommendation, and results of the aptitude portion of the Graduate Record Examination. Specific graduate studies may impose additional requirements for admission.

Military applicants must obtain the approval and sponsorship of their military department and will incur an obligation for additional service.

USUHS graduate studies programs are intended to foster independent scholarship, originality, and competence in research, teaching, and professional service.

Graduate students will serve as teaching and research assistants in support of the USUHS School of Medicine.

Graduate courses will be directed by members of the medical school basic science faculty and will be conducted in new laboratories designed to support a wide variety of research projects. Special resources include high resolution scanning and transmission electron microscopes, biohazard containment laboratories, a central animal facility, computer support, and a medical library.

The USUHS was established by Congress in 1972, and has a current enrollment of 99 medical students. The campus is located in Bethesda adjacent to the National Naval Medical Center and the Armed Forces Radiobiological Research Institute and close to the National Library of Medicine and the National Institutes of Health. Various affiliation agreements between these institutions and the USUHS, as well as with the Walter Reed Army Medical Center and the Armed Forces Institute of Pathology, provide additional resources to enhance graduate education.

For further information, write: COL John W. Bullard, MSC, USA, Assistant Dean for Graduate Education, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Rd., Bethesda, Md. 20014.

DENTAL CONTINUING EDUCATION COURSES

The following dental continuing education courses will be offered in March 1978:

National Naval Dental Center, Bethesda, Md.
Complete dentures 13-15 March 1978

Eleventh Naval District, San Diego, Calif.
Occlusion 13-15 March 1978

U.S. Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, D.C.
Periodontics 6-9 March 1978

Letterman Army Medical Center, San Francisco, Calif.
Periodontics 20-23 March 1978

Requests for courses administered by the Commandant, Eleventh Naval District, should be submitted to: Commandant, Eleventh Naval District (Code 37), San Diego, Calif. 92132. Applications for other dental continuing education courses should be submitted to: Commanding Officer, Naval Health Sciences Education and Training Command (Code 5), National Naval Medical Center, Bethesda, Md. 20014. Applications should arrive six weeks before the course begins.

Cross-country travel and travel from outside the continental U.S. to attend dental continuing education courses generally will not be approved due to funding limitations.

CONTINUING EDUCATION FOR NAVY NURSES

The Naval Health Sciences Education and Training Command will sponsor the following continuing education courses for Navy nurses:

Critical Care of the Respiratory Patient (30 contact hours)
23-27 Jan 1978 NRMCMC San Diego, Calif.

For critical care nurses with special interest in respiratory failure. The physiology of the respiratory and contributing systems will be considered, as well as mechanical and electrical equipment used to support and monitor these systems. Training in basic EKG interpretation is required for enrollment in this course.

Designing Continuing Education Programs (30 contact hours)
27 Feb-3 Mar 1978 NNMCMC, Bethesda, Md.

This seminar offers Nurse Corps officers involved in continuing education programs and clinical instruction education models for individuals and groups. Design of continuing education programs will be explored, with emphasis placed on evaluation methodologies.

The courses are open to Nurse Corps officers not currently assigned to an overseas billet. However, nurses assigned to Argentina, Newfoundland; Bermuda; Guantanamo Bay, Cuba; Keflavik, Iceland; and Roosevelt Roads, Puerto Rico, who have served at least six months on active duty may apply. The courses are also open to Nurse Corps officers of the inactive Reserve on a space-available basis.

Nurse Corps officers wishing to attend these courses should apply to the Naval Health Sciences Education and Training Command (Code 7), National Naval Medical Center, Bethesda, Md. 20014, following procedures set forth in the BUMED Instruction 1520.8 series. Applications should be submitted several weeks before a course begins.

AFIP TO OFFER RADIOLOGY SEMINARS

The Armed Forces Institute of Pathology in Washington, D.C., has announced a series of diagnostic radiology seminars designed to give radiologists an overview of the morphological principles used in evaluating roentgenographic signs. Sessions to be held are:

23-27 Jan 1978 General course on bone, chest, gastrointestinal system, and genitourinary system.

13-17 Feb 1978 Special course on bone and chest.

1-5 May 1978 General course on bone, chest, gastrointestinal system, and genitourinary system.

13-17 Nov 1978 Special course on gastrointestinal system and genitourinary system.

The seminars are approved for 35 hours of credit in Category I for the American Medical Association Physicians Recognition Award.

Registration fee will be \$250. Residents will be admitted for \$175. Federal radiologists with authorized approval are exempt from paying tuition.

Applications are available from: The American Registry of Pathology, Armed Forces Institute of Pathology, ATTN: Radiologic Pathology Seminars, Room M115, Washington, D.C. 20306.

CASUALTY TREATMENT TRAINING FOR DENTAL OFFICERS

A five-day casualty treatment training course was recently conducted at the Naval Regional Dental Center Norfolk, Va. In this course, dental officers learn emergency casualty treatment so they can augment medical efforts during combat. This was the third group of 20 dental officers to complete the course in 1977. Similar courses are held at Great Lakes, Ill., and San Diego.

THANK YOU
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AMERICAN CANCER SOCIETY

BUMED SITREP

UNDERSEA MEDICINE . . . The Undersea Medical Officers Course convening in July 1978 is filling up fast. Interested medical officers should submit their applications as soon as possible (deadline for submission of applications may be extended if there are class vacancies). For additional information see BUMEDINST 1520.3G or call the BUMED Undersea Medicine Division at Autovon 294-4197 or (Area code 202) 254-4197.

REDCOM . . . Officers listed in the Table below have been appointed staff medical officers for their respective readiness commands. They will advise their readiness commander concerning Reserve medical assets in their region, will advise medical Reservists of opportunities for participation and training, and will serve as an interface between the Readiness Command and the Reserve Forces Policy Board. Reserve medical personnel are invited to contact these officers on matters pertaining to medical designators.

UNIFORM CHART OF ACCOUNTS . . . Tests of the DOD Medical Treatment Facility Uniform Chart of Accounts (UCA) began 1 Oct 1977 at NNMC, Bethesda; NSMC, New London; NRMCC Camp Pendleton; and NRMCC Memphis. The aim: to provide a common measurement standard for expenses and performance which will allow any military medical treatment facility to be compared with its counterpart in another military department or in the civilian sector. The new system will be phased in at the four test locations throughout FY78 to identify and correct problems before full Navywide implementation on 1 Oct 1979.

HEALTH EDUCATION . . . BUMED is making increased use of television to bring health care information and education to fleet personnel. Through the Navy's SITE (Shipboard Information, Training and Entertainment) system—an internal network in 150 naval vessels, with a potential audience of more than 163,000 men—programs have recently been provided on such subjects as eye safety, heat stress, physical fitness, hearing conservation and prevention of venereal disease.

Audience response to these programs has been excellent. Additional programs are planned on first aid, toxic breathing hazards, dental care, and safety. Programs are produced by the Naval Health Sciences Education and Training Command.

ASEPTIC BONE NECROSIS . . . Navy medical researchers report that of 934 U.S. Navy divers surveyed radiographically to detect aseptic bone necrosis, 16 positive diagnoses were made (less than 2%); in an additional 11 divers, results were interpreted as doubtful. All films were read by at least two qualified radiologists.

Aseptic bone necrosis was found to be significantly related to the diver's age and number of months spent diving.

Also, in this study divers with aseptic bone necrosis had a history of significantly more treatments for decompression sickness than did divers with no aseptic bone necrosis. The findings suggest that aseptic bone necrosis and decompression sickness may not be causally related, but may instead both be related to a third, common factor. The investigation showed that the low prevalence of aseptic bone necrosis among Navy divers cannot be attributed to any specific index of diving activity.

DISORIENTATION TRAINER . . . A fleet project team has been established to determine military characteristics for a multistation disorientation trainer for flight personnel, to be delivered to the Naval Aerospace Medical Institute in 1980. The device will acquaint aviation personnel with the multiple illusions of flight and procedures to counteract "aviation vertigo."

Readiness Command Staff Medical Officers

Region	Name	City/State	Telephone
1	CAPT Charles I. Brink, MC, USNR-R*	Shrewsbury, Mass.	617-752-1414
2	CAPT S. Wallach, MC, USNR-R	Petersburg, N.Y.	518-462-3311
4	CAPT Gaston G. Trigos, MC, USNR-R	Drexel Hill, Pa.	215-384-7711
5	CAPT Gordon Fred, MSC, USNR-R	Euclid, Ohio	216-289-3847
6	CAPT Clarence J. Gibbs, MSC, USNR-R*	Washington, D.C.	202-547-5999
7	CDR William E. Dukes, MC, USNR-R	Clemson, S.C.	803-654-2067
8	CDR J.J. Cerda, MC, USNR-R	Gainesville, Fla.	904-392-2877
9	CAPT J. Miller, MC, USNR-R*	Memphis, Tenn.	901-726-6868
10	CDR Theodore J. Borgman, Jr., MC, USNR-R*	New Orleans, La.	504-861-2072
11	CDR Charles P. Grier, MSC, USNR-R*	Dallas, Tex.	214-824-0331
13	CAPT John P. Connelly, MC, USNR-R	Riverside, Ill.	312-869-4255
16	CAPT Richard C. Woellner, MC, USNR-R	Minnetonka, Minn.	
18	CAPT P.C. Vescovo, MC, USNR-R*	Kansas City, Mo.	816-452-2810
19	CDR Attila Felsoory, MC, USNR-R*	Arcadia, Calif.	213-359-8111
20	CAPT David B. Davis, MC, USNR-R*	Hayward, Calif.	415-881-8766
22	CDR Lynn Frary, MC, USNR-R	Seattle, Wash.	206-228-1123

*Member of Reserve Forces Policy Board

Policy

Instructions and Directives

Use of animals in research and instructional programs

SECNAVINST 3900.38A of 21 March 1977 (an enclosure to BUMED Instruction 3900.7 of 21 June 1977) transmits DOD policy on procurement, transportation, care and use of animals in research, clinical investigation, and instructional programs. Technical information required in connection with local implementation of the provisions of this instruction may be obtained from the Special Assistant for Veterinary Medicine, Naval Medical Research and Development Command, Bethesda, Md. 20014.—BUMED Instruction 3900.7 of 21 June 1977.

Programming investment equipment requirements

The Secretary of Defense has promulgated new regulations governing review and approval procedures for all medical equipment or systems costing \$100,000 or more. A triservice regulation on this subject will be published soon.

All budget requests for such equipment must now include the following information:

- Description of equipment, including model or manufacturer's number.
- Complete description of intended use.
- Description of how function for which new equipment is intended is now being performed.
- List of specific procedures to be accomplished.
- Quantity and current use of similar items by which those procedures are now accomplished.
- Savings in time, money or personnel expected; any increased workload expected.
- Facility modifications required.
- Number of personnel qualified to use equipment; staffing projections and any expenses for training operators.
- Statement about maintenance (including maintenance record of any equipment to be replaced).
- Availability of similar equipment in other DOD, federal, or civilian health care facilities.
- Cost/benefit analysis.
- Written recommendations from DOD Regional Review Committee.—BUMED NOTE 4235 of 24 June 1977.

Disposition of enlisted members by medical board action

All health records of Marine Corps members discharged or released from active duty after 1 July 1977 will be closed and forwarded to the command maintaining the member's Service Record Book. Original medical board reports with all endorsements showing date and action taken will be placed in the member's service record; the closed health record will then be included in and transmitted with the service record.

When a member is qualified for discharge for reasons other than the physical disability indicated (unsuitability or misconduct, for example), the medical board report shall be forwarded to the Commandant of the Marine Corps or the Chief of Naval Personnel, as appropriate, via BUMED, Code 332.—BUMED Instruction 1910.2G, change transmittal 2 of 28 June 1977.

Transfer of patients to VA facilities

Procedures for handling the health records of Marine Corps members no longer on active duty have been changed. When a Navy or Marine Corps member is retired, discharged, or released to inactive duty while receiving medical treatment at a VA facility, the member's commanding officer shall have the patient's narrative summary of hospitalization incorporated in the member's health record. The health record shall then be closed and transmitted with the member's service record.

When such a patient executes a claim for VA benefits at the time of retirement or separation, the naval installation retiring or separating the member shall send a copy of the Report of Separation from Active Duty (DD Form 214N/214MC) to the VA treatment facility within 48 hours.—BUMED Instruction 6320.11C, change transmittal 2, of 5 July 1977.

New statistical accounts for Resource Management System

Two new statistical accounts for the Resource Management System have been established, as a result of a General Accounting Office request that obligations for Operation and Maintenance appropriations be restricted to amounts approved for general purposes and for maintenance of real property, and that these two categories of obligations be separately identified.

The new accounts are 0931 (unobligated annual balance available for general purposes other than maintenance of real property) and 0932 (unobligated annual balance available for maintenance of real property). Both accounts have a normal debit balance. A net credit balance of accounts 0931 and 0932 will indicate an apparent R.S. 3679 violation.—BUMED NOTE 7300 of 19 July 1977.

Independent Duty

Treatment of Nosebleeds

LCDR Frank S. Curto, MC, USNR
CDR Alan D. Kornblut, MC, USNR

Nosebleeds—one of the medical problems most frequently seen by hospital corpsmen serving on independent duty—may result from local causes (pathology of the nose itself) or from general, systemic causes, as well as a combination of both (see Table I).

Trauma—nosepicking, excessive nose blowing, fighting—represents the most common local cause of nosebleeds. Other local causes include ulcerations, tumors, venous dilatations or varicosities, and acute infections or inflammations. General causes of nosebleeds include high blood pressure (arterial or venous) and altered capability for the blood to clot, as well as physiologic (vasomotor) and pressure (baro) changes.

The patient's age is important in diagnosing the cause of nasal bleeding. In children, falls or blows to the nose are common, as are nasal picking and inserting foreign bodies into the nose. In young adults, septal deformities commonly occur, as do idiopathic nosebleeds. The older patient with nasal bleeding commonly has high blood pressure with hardening of the arteries, which often causes the nasal mucosa to crack. However, all possibilities for nasal bleeding exist in all age groups.

In the younger patient, nasal bleeding tends to be located in the anterior or front part of the nose—particularly in the anterior nasal septum area called Kiesselbach's plexus of vessels. Older patients more commonly have both anterior and posterior nasal bleeding sites. But again, any location for bleeding is possible in any patient.

Nasal bleeding will stop spontaneously in most patients or will readily respond to simple maneuvers such as bending the head forward to prevent blood from running down the back of the throat, pinching the nostrils tightly together, or placing cotton inside the nose for simple pressure hemostasis. Other measures, such as placing icepacks or cold, wet cloths on the nose or back of the neck or inserting gauze between the upper lip and gum, are not very useful—other than giving the patient something to do and perhaps putting his mind at ease.

From the Department of Otolaryngology, National Naval Medical Center, Bethesda, Md. 20014.

TABLE I. Some Causes of Epistaxis (Rhinorrhagia)

Local Causes

Idiopathic

Environmental changes: "Dry air," barotrauma

Anatomic variations: varicosities, septal deformities

Injuries: trauma (including nose picking or exaggerated nasal blowing), surgery, foreign bodies in nose

Infections: viruses or bacteria (including influenza, scarlet fever, rubella, pertussis), syphilis, tuberculosis, leprosy

Neoplasms: angiomas, papillomas, minor salivary tumors, carcinomas, sarcomas

Systemic Causes

Physiologic: exercise (vasomotor changes)

Hypertension

Elevated venous pressures: chronic obstructive pulmonary disease, cor pulmonale, cerebral congestion

Primary blood or vessel diseases: hemophilia, anemias, purpuras, scurvy, leukemias, hereditary telangiectasias, miscellaneous blood factor deficiencies

Infections

Drugs: heparin, coumadin, aspirin, immunosuppressants

Problem patients are those in whom simple measures do not stop nasal bleeding. These patients require careful examination and treatment (see Table II), including some form of nasal packing; they should *not* be treated merely with supportive medications and expectant waiting. In rare instances, medical management must be instituted to stop the bleeding, or selective vessel ligation is required.

Determining the site of nasal bleeding is essential for proper therapy, and requires some understanding of the nasal blood supply. In reviewing this blood supply, it is helpful to divide the nose into the lateral wall and the nasal septum. Both sites are supplied by the internal and external carotid arteries. Figures 1, 2, and 3 show the major vessels which supply the internal nasal tissues. For successful management of bleeding, the location of the bleed should be identified by referring to the specific blood vessels involved.

TABLE II. Checklist for Managing Nasal Bleeding

- A. Treat underlying diseases—especially cardiovascular (hypertension), hepatic, or renal diseases, and clotting defects.
- B. Stop any medications which can cause nosebleeds **unless medically contraindicated**.
- C. Control apprehension with sedatives as needed (Phenobarbital, 30 mg p.o., q.i.d., p.r.n.; Diazepam, 5-10 mg i.m., or p.o., t.i.d., p.r.n.).
- D. Examine the nose carefully:
 - 1) Have patient sit upright with head slightly forward.
 - 2) Have patient gently blow clots from nose.
 - 3) Using good illumination from a headmirror or lamp, quickly inspect nasal tissues.
 - 4) Firmly place 5% cocaine cotton pledgets inside patient's nose for anesthesia, decongestion and vasoconstriction.
- E. For anterior nasal bleeding involving the septum or the turbinates:
 - 1) Attempt cautery with topical trichloroacetic acid or silver nitrate. Electrocautery may also be useful.
 - 2) Suture ligate point bleeding with #3-0 chromic catgut, if necessary.
 - 3) Firmly pack the nose with layers of 1/2-inch vaseline gauze, if necessary.
- F. For posterior nasal bleeding:
 - 1) Use either nasopharyngeal pack or balloon catheter in addition to firm layered anterior packing. (Nasopharyngeal packs **must** be secured by transnasal strings to prevent dislodgement and aspiration.)
 - 2) Give analgesics (aspirin or codeine) as needed.
 - 3) Give antibiotics (penicillin, erythromycin or tetracycline) to prevent suppurative sinusitis.
 - 4) Admit to hospital for care, and keep patient on bed rest with bathroom privileges. (Head should be elevated 60° in bed to minimize facial edema and to assist respirations.)
- G. Transfuse patient with whole blood or fresh frozen plasma as needed, based on hematocrit and vital signs.
- H. If bleeding is adequately controlled when packs are used:
 - 1) Carefully remove packs in 3 to 5 days. (Remove packs sooner if poorly tolerated or if sinusitis occurs.)
 - 2) Obtain rhinologist's consultation to correct anatomic causes of nasal bleeding.
- I. If bleeding persists, obtain specialty consultation or transfer patient to specialty medical center for further care. Selective vessel ligation may be required.
- J. **Do not biopsy** any tissues unless definitive therapy is immediately available.
- K. **Do not delay** patient transfers when inadequate medical support is available.

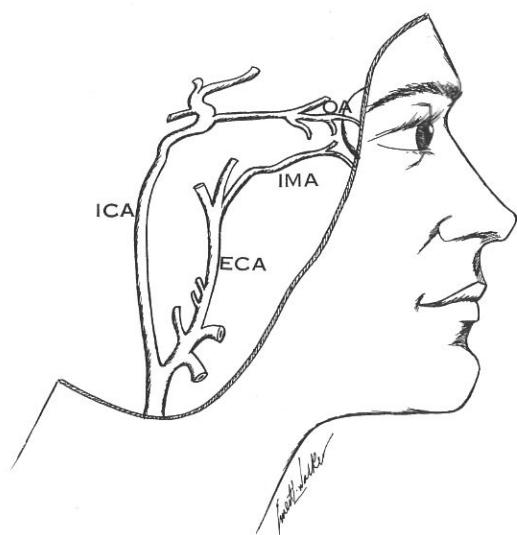


FIGURE 1. This schematic diagram shows the major posterior and superior blood vessels of the nose as derived from the internal maxillary artery (IMA) and the ophthalmic artery (OA). ECA = external carotid artery. ICA = internal carotid artery.

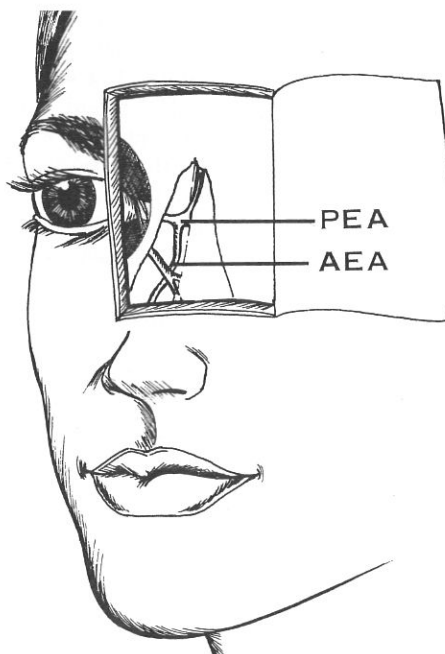


FIGURE 2. The anterior ethmoid artery (AEA) and posterior ethmoid artery (PEA) are the terminal intranasal branches of the ophthalmic artery.

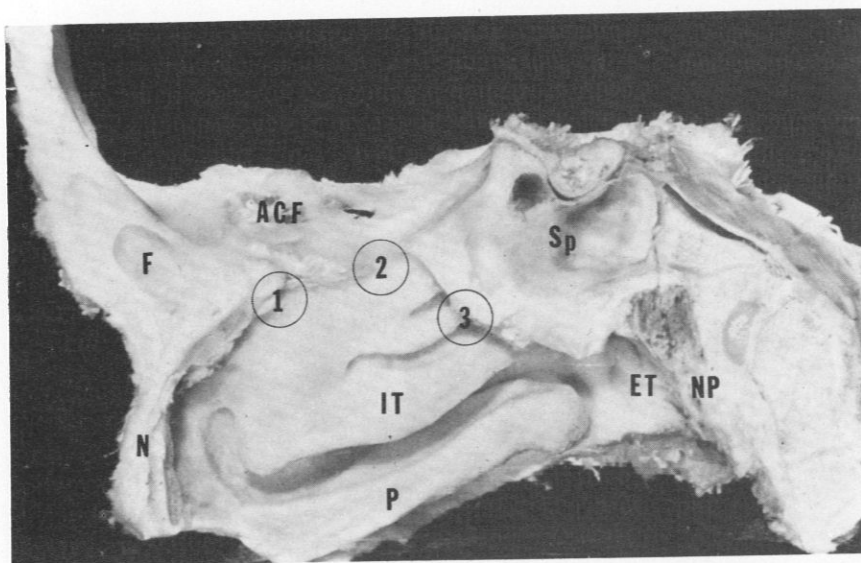


FIGURE 3. This sagittal section of the skull shows sites of major vessel entry into the lateral and superior nasal soft tissues. (1) Anterior ethmoid artery; (2) posterior ethmoid artery; (3) sphenopalatine or nasopalatine branches of internal maxillary artery. N=external nasal soft tissues; F=frontal sinus; ACF=anterior cranial fossa; Sp=sphenoid sinus; ET=eustachian tube orifice; NP=posterior nasopharynx; IT=inferior nasal turbinate; P=palatine vault or nasal floor.

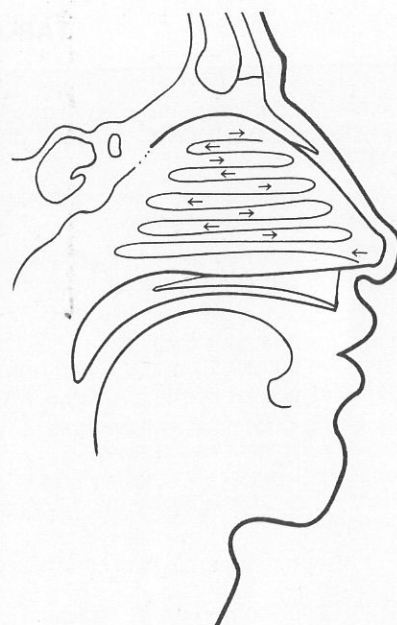


FIGURE 4. Anterior nasal pack. Arrows show proper direction in which pack should be layered—from anterior-inferior to posterior-superior.

Three areas—anterior, posterior and superior—should be considered. On the anterior (cartilaginous) septum a plexus of vessels is present, formed by contributions from the anterior ethmoid artery, the septal branch of the superior labial artery, the septal branch of the sphenopalatine artery, and the greater palatine artery. These vessels supply Kiesselbach's or Little's area. Bleeding may occur from any of these vessels.

On the lateral nasal wall, the anterior ethmoid artery, nasal branch of the anterior inferior artery, dental branch of the infraorbital artery, and a branch of the sphenopalatine artery constitute the blood supply. Superior bleeding may arise from the anterior or posterior ethmoid arteries as well as from the superior nasal branch of the sphenopalatine artery, all of which supply the superior septum and lateral nasal wall. Posterior bleeding occurs from the sphenopalatine artery or one of its branches.

In practical clinical situations, bleeding may be generalized—especially from the septum, the anterior end of the inferior nasal turbinate, from beneath the posterior part of the inferior turbinate, or from high in the nose between the nasal septum and middle turbinate.

STEPS TO STOP BLEEDING

In addition to the measures listed in Table II, the following steps can be helpful in stopping nasal bleeding:

1) Gown the patient and yourself, since even a small

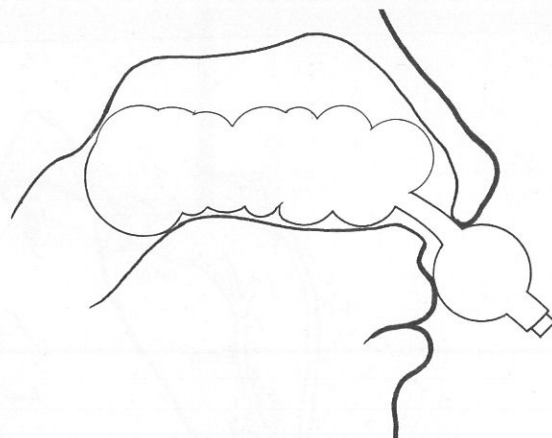


FIGURE 5. The balloon nasal catheter is inflated to place pressure against the nasal walls. Care must be taken to not overinflate the catheter, causing pressure necrosis.

amount of blood, when accidentally coughed or sneezed, can be sprayed over a large area.

2) Position the patient upright in an examining chair, unless he is hypotensive. If necessary, the nose can be inspected with the patient in a head-down position.

3) After anesthetizing and decongesting the nose, use an angulated suction tube to remove blood or clots and allow unobstructed visualization of the bleeding site. Of course, a headlamp or headmirror is a must!

4) If the bleeding site is located anteriorly in the nose, local cautery or a fixation suture can be used. If

needed, an anterior ½-inch vaseline gauze pack, firmly layered from the nasal floor to the nasal dome, can be inserted and left in place for three to five days (Figure 4).

5) Persistent superior bleeding occasionally requires ligation of the ethmoid arteries. However, this should be done only by a qualified physician.

6) The site of posterior nasal bleeding is usually detected by careful positioning of a nasal suction catheter. Since the site may not be visible, local cautery or suture is usually not possible. In such patients, a posterior pack must be placed.

An "adenoid" sponge is useful or a pack can be made by folding in half a 4x4-inch gauze pad impregnated with antibiotic ointment. Two heavy silk threads should be tied about the middle of the pack to keep it from slipping into the throat. Two of the four thread ends should be brought through the nostril on the bleeding side and fastened tightly over an external nasal gauze bandage to prevent dislodgement or local tissue trauma from the suture material. The pack should be firmly cinched into the nasopharynx against the posterior nasal tissues.

A soft balloon catheter may also be used as a posterior pack, as the inflated balloon puts pressure against the posterior nasal tissues. Figure 5 depicts a Gottschalk catheter, which is commercially available. A Foley catheter can also be used and maintained in position with an umbilical clamp placed against the external nose at the philtrum. Anterior packs should also be used.

7) Since sinus infection may result from the use of posterior packs, patients who require such treatment should be hospitalized as soon as possible. If hospitalization cannot be arranged promptly, the patient should be given mild sedatives and analgesics, as well as prophylactic antibiotics such as penicillin. Bed rest in a semi-sitting position is helpful, and diet and activity should be adjusted as tolerated. Serial hematocrits should be obtained to determine whether blood replacement is needed. Of course, a medical evaluation should be performed as soon as possible.

8) If further bleeding occurs, selective ligation of branches of the external or internal carotid artery should be considered. For this procedure, the patient *must* be referred to a medical specialist.

Removal of nasal packs requires great discretion, but should be done carefully after three to five days. Packs may be removed sooner if bleeding persists because of inadequate placement of the packs or because the patient is unable to tolerate them.

Nasal bleeding is often associated with great apprehension both on the part of patients and many people who care for patients. However, a careful systematic approach to the management of nasal bleeding will almost always result in a well-cared-for patient and a hospital corpsman who can rest assured that he has done his job well.

Preventive Medicine

How to Maintain Shipboard Water Quality

From 1961 to 1973 there were more than 200 known or reported outbreaks of disease or poisoning caused by contaminated drinking water. Twenty-two people died and an estimated 54,537 became ill, many seriously. Some water supply experts from the Environmental Protection Agency believe that perhaps ten times as many outbreaks occur but go unreported for a variety of reasons, and that countless individual sufferers—and their physicians—fail to associate ailments with contaminated water.

Germ-laden water can cause salmonellosis and gastroenteritis—both serious illnesses involving the stomach and intestines—as well as typhoid and cholera.

A recent community water supply study revealed that an estimated eight million people were being served potentially dangerous water from perhaps 5,000 community water supply systems.

The preceding information was taken from an EPA report on the quality of drinking water. Now that you know that some community water supplies are of questionable quality, think about what may be happening to your shipboard water during the loading and disinfection process.

To assure yourself of a safe water supply, first ensure that there is a chlorine/bromine residual at all points in the distribution system aboard your ship. Chapter 6 of the *Naval Preventive Medicine Manual* states that the Medical Department representative should take daily chlorine/bromine readings at varying points, and should maintain a record of such tests. Chlorine/bromine testing should also be performed routinely before you receive water supplies on board.

Although a chlorine/bromine residual is indicative of a pure water supply, the only way to be absolutely certain is through bacteriological testing. A minimum of four samples per week, obtained at varying points in the water system, should be examined using the membrane filter technique. And don't forget the paperwork: a two-year log should be maintained showing dates, locations, and results of such sampling.

—Pacific Health Bulletin, No. 97, May 1977

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